



NATURAL
HISTORY

JUN

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THE
Avicultural Magazine,

BEING THE JOURNAL OF
THE AVICULTURAL SOCIETY
FOR THE STUDY OF
FOREIGN AND BRITISH BIRDS

IN FREEDOM AND CAPTIVITY.

• EDITED BY

FRANK FINN, B.A., F.Z.S., M.B.O.U.

(November to July),

AND

J. LEWIS BONHOTE, M.A., F.L.S., F.Z.S., M.B.O.U.

(August to October).

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ERRATA.

- p. 214 line 19, *for* Bolearica *read* Balearica.
p. 333 line 13, *for* Madned *read* Maned.
p. 335 line 18, *for* Nicrotribonyx *read* Microtribonyx.
p. 336 line 10, *for* Orinott *read* Orinoco.

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REPORT OF THE COUNCIL

FOR 1909-1910.

During the past year the Council has seriously considered the question of a change of publishers for the Magazine; and at the meeting held in July it was unanimously and definitely decided to accept the specification tendered by Messrs. West, Newman & Co., the well-known publishers of the "Zoologist" and other monthly periodicals dealing with natural history from the popular and scientific side.

Members of the Society therefore are requested to remember that for the ensuing year, and until further notice, the publishers of the Magazine are

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One more change has to be announced. Mr. FRANK FINN, who was appointed editor in succession to Mr. SETH-SMITH, was reluctantly and unexpectedly compelled by pressure of other work to resign the Editorship last June. The Executive Committee were fortunate enough to secure the services of Mr. J. LEWIS BONHOTE for the post, and desire to express their indebtedness to him for consenting to take the matter in hand at a moment's notice.

For the rest the progress made in the past year calls for no special comment. Under Mr. FINN, and latterly under Mr. BONHOTE no effort has been spared to keep the Magazine up to

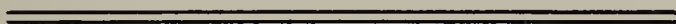
the high standard of previous years, both in the way of illustrations and subject matter, and the thanks of the Council are herewith given to all those Members who have kindly contributed articles and notes to the present volume.

It must be remembered, however, that owing to the cost of production, this standard can only be maintained at a high expense and improved by increased income—in other words by increased membership. The Council, therefore, would urge existing Members to lose no opportunity of bringing the work and privileges of the Society before the notice of friends who are interested in birds.

Signed for the Council,

R. I. Pocock,

Hon. Business Secretary.



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- BUTLER, A. L., F.Z.S., M.B.O.U.; Superintendent of Game Preservation, Khartoum, Soudan. (Aug., 1906).
- BUTLER, ARTHUR LARCHIN, M. Aust. O. U.; Waimarie, Lower Sandy Bay, Hobart, Tasmania. (July, 1905).
- BÜTTIKOFER, Dr. J., C.M.Z.S., M.B.O.U.; Director of the Zoological Gardens, Rotterdam, Holland. (Oct., 1907). (*Hon. Member*).
- BUXTON, E. HUGH; Fritton Hall, Great Yarmouth, Norfolk. (June, 1909).
- CALLEY, OLIVER J.; Burderop Cottage, Wroughton, near Swindon. (Dec., 1908).
- CAMPBELL, The Hon. Ian M.; Stockpole, Pembroke. (Dec., 1905).
- 70 CAMPS, H. T. T., F.Z.S.; Linden House, Haddenham, Isle of Ely. (Orig. Mem.)*
- CAPERN, F.; Avenne House, Cotham Park, Bristol. (March, 1903).
- CARPENTER, The Hon. Mrs.; 22, Grosvenor Road, S.W. (Feb., 1898).
- CARRICK, GEORGE; 13, King's Terrace, Maryhill, Glasgow. (March, 1898).
- CASTELLAN, VICTOR E.; Hare Hall, Romford, Essex. (Orig. Mem.)
- CASTELL, Mrs. G. B.; Fleetwood Cottage, Rye, Sussex; and Villa Stella, via Montebello, Rapallo, Riviera di Levante. (Dec., 1906).
- CASTLE-SLOANE, C., F.Z.S.; Oat Hall, near Crawley, Sussex. (March, 1900).
- CATTLE, C. F.; Thurston, Bury St. Edmunds. (Jan., 1905).
- CECIL, The Lady WILLIAM; Hunmanby Hall, Filey, Yorkshire. (Feb., 1901).
- CHARRINGTON, Mrs. C.; Frensham Hill, Farnham, Surrey. (Jan., 1907).
- 80 CHARRINGTON, Mrs. MOWBRAY; How Green, Hever, Edenbridge, Kent. (May, 1906).
- CHAWNER, Miss; Forest Bank, Lyndhurst, Hants. (July, 1899).
- CLITHEROW, Mrs. CLAUD STRACEY; 20, Park Square, Regent's Park, N.W. (June, 1903).
- COCKELL, NORMAN FORBES; 21, Camac Street, Calcutta, India. (Nov., 1905).

- CONNELL, Mrs. KNATCHBULL; The Orchard, Brockenhurst, Hants. (Nov., 1897).
- CONSTABLE, The Rev. W. J.; Uppingham School, Uppingham. (Sept., 1901; dormant 1905-6).
- COOKSON, KENNETH; Oakwood, Wylam, R.S.O., Northumberland. (Nov., 1906).
- COOLEY, W. W.; Secretary to the Avicultural Society of California; 2119, Central Avenue, Alameda, Cal., U.S.A. (Feb., 1909).
- COOPER, JAMES; Cayton, Scarborough. (Orig. Mem.)
- COOPER, WILLIAM; Aislaby Hall, Pickering, Yorks. (March, 1907).
- 90 CORBET, Lady; Acton Reynold, Shrewsbury. (Oct., 1905).
- CORY, REGINALD R.; Duffryn, near Cardiff. (August, 1905).
- COXWELL-ROGERS, Miss; Park Gate, Cheltenham. (Dec., 1895).
- CREEVEY, GEORGE M., M.D.; 40, East 63rd Street, New York City. (Jan., 1908).
- CROFT, A. B.; The Clock House, Ashford, Middlesex. (May, 1907).
- CRONKSHAW, J.; 252, Burnley Road, Accrington. (Dec., 1894).
- CROSS, W. SIMPSON, F.Z.S.; 18, Earle Street, Liverpool. (Jan., 1908).
- CROWFOOT, Miss ELLEN M.; Blyburgate House, Beccles. (Sept., 1904).
- CUMMINGS, A.; 16, Promenade Villas, Cheltenham. (Dec., 1896).
- CUNINGHAM, MARTIN; Goffs Oak House, Cheshunt, Herts. (Oct., 1908).
- 100 CURREY, Mrs.; The Pit House, Ewell, Surrey. (Feb., 1906).
- CURTIS, THOMAS; 67, Frith Street, Soho Square, London, W. (Nov., 1907).
- CUSHNY, CHARLES; The Bath Club, 34, Dover Street, Piccadilly, W. (June, 1906).
- DAVIES, AMOS; Tour House, Audenshaw, near Manchester. (Jan., 1906).
- DAVIES, CLAUDE G., M.B.O.U.; "D" Squadron, Cape Mounted Riflemen, Bizana, E. Pondoland, S.A. (July, 1909).
- DAWNAY, The Lady ADELAIDE; Brampton House, Northampton. (July, 1903).
- DAWSON, The Hon. Mrs.; Holne Park, Ashburton, Devon. (June, 1908).
- DELL, CHARLES; 12, High Street, Harlesden, N.W. (July, 1900).
- DENMAN, ARTHUR, M.A., F.Z.S., F.S.A.; 29, Cranley Gardens, South Kensington, S.W. (Sept., 1909).
- DENNIS, Mrs. H. E.; St. Leonard's Park, Horsham. (March, 1903).
- 110 DENT, Mrs.; Luscombe Castle, Dawlish. (March, 1907; dormant).
- DE TAINTEGNIES, La Baronne, Le Clément; Cleveland, Minehead, Somerset. (Feb., 1902).
- D'EVELYN, Dr. FREDERICK W., Pres. G. S., Cal., etc., etc.; 2103, Clinton Avenue, Alameda, California, U.S.A. (June, 1906).
- DEWAR, D., I.C.S.; c/o Messrs. Grindley & Co., 54, Parliament Street, S.W. (Sept., 1905).
- DEWING, Miss; Roughton House, Bury St. Edmunds. (Sept., 1906).
- DEWINTON, WILLIAM EDWARD, F.Z.S., M.B.O.U.; Orierton, Pembroke. (Aug., 1903).
- DOBIE, L. J.; Moorland House, Heswell, Cheshire. (August, 1909).
- DONALD, C. H.; c/o The Alliance Bank of Simla, Ltd., Simla, India. (March, 1906).

- DOUGLAS, Miss; Rose Mount, Pitlochry, N.B. (June, 1905).
- DOUGLAS, WILLIAM C., F.Z.S.; 9, Trebovir Road, Earl's Court, S.W. (Nov., 1900).
- 120 DREWETT, FREDERICK DAWTREV, M.A., M.D., F.R.C.P., F.Z.S., M.B.O.U.; 14, Palace Gardens Terrace, Kensington, W. (May, 1903).
- DRUGHORN, FRITZ; "Bonavie," 27, The Avenue, Beckenham, Kent. (March, 1909).
- DRUMMOND, HAY, Colonel; Seggieden, Perth, N.B. (July, 1907).
- DRUMMOND, Miss; Mains of Megginch, Errol, N.B. (Feb., 1905).
- DUFF, The Lady GRANT; Earl Soham Grange, Framlingham, Suffolk. (Aug., 1905).
- DUNLEATH, The Lady; Ballywalter Park, Ballywalter, co. Down, Ireland. (August, 1897).
- DUTTON, The Hon. and Rev. Canon; Bibury, Fairford. (Orig. Mem.)
- EDWARDS, G.; 377, Coldharbour Lane, Brixton, S.W. (August, 1902).
- EDWARDS, STANLEY, B.A., F.Z.S.; c/o E. B. Trotter, Esq., 64, Victoria Street, Westminster, S.W. (Sept., 1906; dormant).
- EZRA, DAVID; 3, Kyd Street, Calcutta. (June, 1902).
- 130 FANSHAWE, Capt. R. D.; Admiralty House, Portsmouth. (Aug., 1907).
- FARMBOROUGH, PERCY W., F.Z.S.; Lower Edmonton. (June, 1896).*
- FARRAR, The Rev. C. D.; Micklefield Vicarage, Leeds. (Jan., 1895).
- FASEY, WILLIAM R.; The Oaks, Holly Bush Hill, Snaresbrook, N.E. (May, 1902).
- FIELDING, The Lady LOUISA; Broome Park, Betchworth, Surrey. (July, 1902).
- FIELD, GEORGE; Sorrento, Staplehurst, Kent. (March, 1900).
- FINN, FRANK, B.A., F.Z.S., M.B.O.U., (*Editor*); 35, St. George's Road, Regent's Park, London, N.W. (March, 1895).
- FLOWER, Captain STANLEY S., F.Z.S., M.B.O.U.; Director Egyptian Government Zoological Gardens; Ghizeh (Giza), Cairo. (Jan., 1903).
- FLOWER, Mrs. STANLEY; Kedah House, Giza, Egypt. (March, 1909).
- FOCKLEMAN, HERR AUGUST; Tier Park, Gross-Birstel, Hamburg. (Nov., 1907.)
- 140 FOLLETT, The Lady JULIA; Woodside, Old Windsor. (Oct., 1903).
- FORTESCUE, Col. H.; Falmouth House, Newmarket. (Oct., 1908).
- FOSTER, WM. HILL; 164, Portland Street, Southport. (Jan., 1902).
- FOTHERGILL, Major HENRY, J.P.; Copt Hall, Hawkhurst. (April, 1900).
- FOWLER, CHARLES; 26, Broad Street, Blaenavon. (Dec., 1894).
- FROST, WILFRED; 13, Westcroft Square, Ravenscourt Park, W. (July, 1908).
- GAILLAND, CHARLES E.; Bradley House, Market Weighton, E. Yorks. (May, 1909).
- GALLOWAY, P. F. M.; Durban, St. Peter's Avenue, Caversham, Reading. (March, 1907).
- GIBBS, Mrs. H. MARTIN; Barrow Court, Flax Bourton, R.S.O., Somerset. (April, 1904).

- GIBBINS, WILLIAM B.; Ettington, near Stratford-on-Avon. (June, 1895).*
- 150 GIFFORD, EDWARD W.; Assistant Curator of Ornithology, California Academy of Sciences, San Francisco, U.S.A. (April, 1908).
- GILBEY, Sir WALTER, F.Z.S.; Elsenham Hall, Elsenham, Essex. (Dec., 1907).
- GILES, HENRY M., M. Aust. O. U. (Orig. Mem.); Zoological Gardens, Perth, Western Australia. (June, 1903).
- GILL, ARTHUR, M.R.C.V.S.; Veterinary Establishment, Bexley Heath, Kent. (Dec., 1899).
- GILROY, NORMAN, M.B.O.U.; 95, Claremont Road, Forest Gate, E. (July, 1906).
- GLADSTONE, Miss J.; The Lodge, Parkstone, Dorset. (July, 1905).
- GODDARD, H. E.; Rothsay, Thicket Road, Sutton, Surrey. (Feb., 1899).
- GODMAN, F. DUCANE, D.C.L., F.R.S., F.Z.S.; President of the British Ornithologists' Union; 45, Pont Street, S.W. (Oct., 1904). (*Honorary Member*).
- GOODALL, J. M.; 52, Oxford Gardens, N. Kensington, London, W. (July, 1905).
- GOODCHILD, HERBERT, M.B.O.U.; 66, Gloucester Road, Regent's Park, N.W. (Oct., 1902).
- 160 GOODFELLOW, WALTER, M.B.O.U.; Montrose, New Park Road, West Southbourne, Hants. (June, 1897).
- GORTER, Madame; The Delta, Walmer, Kent. (Nov., 1901).
- GOW, J. BARNETT; 21, West Nile Street, Glasgow and Ledcameroch, Bearsden, Glasgow. (Feb., 1906).
- GRABOWSKY, F., Director of the Zoological Gardens; Breslau, Germany. (June, 1905).
- GRAY, HENRY, M.R.C.V.S.; 23, Upper Phillimore Place, W. (June, 1906).
- GREEN, ROBERT; Covent Garden, London. (Nov., 1907).
- GREGORY, Mrs.; Melville, Parkstone, Dorset. (Dec., 1901).
- GRIFFITHS, M. E.; 4, Temple Road, Stowmarket. (May, 1902).
- GRISCOM, LUDLOW; 21, Washington Square North, New York City U.S.A. (April, 1905).
- GRÖNVOLD, HENRIK; 26, Albert Bridge Road, Battersea Park, S.W. (Nov., 1902).
- 170 GUILFORD, Miss H.; 23, Lenton Avenue, The Park, Nottingham. (March, 1903).
- GULBENKIAN, C. S.; 38, Hyde Park Gardens, London, W. (Dec., 1908).
- GÜNNING, Dr. J. W. B., F.Z.S., Director of the Transvaal Museum and Zoological Gardens; Pretoria, South Africa. (Sept., 1906).
- GÜNTHER, ALBERT, M.A., M.D., Ph.D., F.R.S., F.Z.S., M.B.O.U.; 2, Lichfield Road, Kew Gardens. (Sept., 1902). (*Honorary Member*).
- GUNTHER, ROBERT L.; Park Wood, Englefield Green, Surrey. (Aug. 1904).
- GURNEY, JOHN HENRY, F.Z.S., M.B.O.U.; Keswick Hall, Norwich; and Athenæum Club, Pall Mall, S.W. (Dec., 1904).
- HAAGNER, A. K., F.Z.S., M.B.O.U., Transvaal Museum, Pretoria, South Africa. (Nov., 1905).

- HALHED, Lieut. N. G. B.; King's Own Yorkshire Light Infantry; 3rd Battalion, Egyptian Army, Khartoum. (Dec., 1908).
- HAMILTON, Madame; Les Deux Parzes, Champéry, (Valaise), Switzerland. (Nov., 1902).
- HAMILTON, Miss; 2, Upper Wimpole Street, W. (April, 1902).
- 180 HARDING, W. A., F.Z.S.; Histon Manor, Cambridge. (Dec., 1903).
- HARDING, W.; The Duke of Edinburgh Hotel, 85 & 87, Kingston Road, Wimbledon. (August, 1905).
- HARDY, LAWRENCE, M.P.; Sandling Park, Hythe, Kent. (Nov., 1906).
- HAREWOOD, The Countess of; Harewood House, Leeds. (March, 1903).
- HARPER, Miss; 55, Waterloo Road, Bedford. (March, 1902).
- HARPER, EDWARD WILLIAM, F.Z.S., M.B.O.U.; 6, Ashburnham Road, Bedford. (Feb., 1901).
- HARRISON, J. H.; Ellerslie, East Beach, Lytham. (Sept., 1906).
- HARTLEY, Mrs.; St. Helen's Lodge, Hastings. (April, 1897).
- HARVEY, The Hon. Lady; Langley Park, Slough. (Oct., 1906).
- HAWKE, The Hon. MARY C.; Wighill Park, Tadcaster. (Nov., 1900).
- 190 HAWKINS, L. W.; Estrilda, 206, Clive Road, West Dulwich, S.E. (Jan., 1899).
- HAZELRIGG, Sir ARTHUR; Noseley Hall, Leicester. (March, 1907).
- HEMSWORTH, The Rev. B., M.A., J.P.; Monk Fryston Hall, South Milford, Yorks. (June, 1901).
- HESKETH, F. FERMOR; 9th (Queen's Royal) Lancers; Cantonments, Potchefstroom, Transvaal, S. Africa. (Jan., 1908).
- HEWITT, H. C.; Hope End, Ledbury, Herefordshire. (Jan., 1905).
- HILL, Mrs. E. STAVELEY; Oxley Manor, Wolverhampton. (Oct., 1905).
- HINCKES, R. T.; Foxley, Hereford. (Feb., 1899).
- HINCKS, Miss E. MARJORIE; Barons Down, Dulverton. (Feb., 1908).
- HINDLE, R. FRANKLIN; 34, Brunswick Road, Liverpool. (Sept., 1898).
- HOBSON, F. G.; Villa Delta, Beverley. (May, 1905; dormant).
- 200 HODGSON, The Hon. Mrs.; Clopton, Stratford-on-Avon. (March, 1903).
- HOLDEN, RALPH A., F.Z.S.; 5, John Street, Bedford Row, London. (May, 1906).
- HOPKINSON, EMILIUS, D.S.O., M.A., M.B. Oxon., 45, Sussex Square, Brighton; and Bathurst, Gambia, West Africa. (Oct., 1906).
- HOPSON, FRED C.; Northbrook Street, Newbury. (March, 1897).
- HORSBRUGH, Major BOYD R., A.S.C.; Tempe, Bloemfontein, S. Africa. (Jan., 1898).
- HORSBRUGH, C. B.; 7, Kensington, Bath. (June, 1905; dormant).
- HORTON, LEONARD W.; Hill House, Compton, Wolverhampton. (Feb., 1902).
- HOUSDEN, JAMES B.; Brooklyn, Cator Road, Sydenham, S.E. (Orig. Mem.)
- HOWARD, ROBERT JAMES, M.B.O.U.; Shear Bank, Blackburn. (April, 1903).
- HOWARD-VYSE, H.; Stoke Place, Slough. (Nov., 1906).
- 210 HOWMAN, Miss; 6, Essex Grove, Upper Norwood. (March, 1897).
- HOYLE, Mrs.; The Vicarage, Stoke Poges, Bucks. (Nov. 1904).
- HOYTE, P. S.; Dunlewey, Seymour Road, Plymouth. (May, 1908).

- HUBBARD, GEORGE. 112, Fenchurch Street, E.C. (Jan., 1905).
 HUGHES, Lady; Shelsley Grange, Worcester. (Nov., 1904).
 HUMPHREYS, RUSSELL; Bryn Court, Warlingham, Surrey. (April, 1896).
 HUNTER, FRANK; 7, York Place, Edinburgh, and Knockhill, Ecclefechan. (Feb., 1906).
 HUSBAND, Miss; Clifton View, York. (Feb., 1896).
 HUTCHINSON, Miss ALICE; Alderton Vicarage, Chippenham, Wilts. (August, 1907).
- INCHQUIN, The Lady; Dromoland Castle, Newmarket-on-Fergus, County Clare, Ireland. (Nov., 1897).
- 220 INGRAM, COLLINGWOOD; The Bungalow, Westgate-on-Sea. (Oct., 1905).
 INGRAM, Sir WILLIAM, Bart.; 65, Cromwell Road, London, S.W. (Sept., 1904).
 INNES, Bey. Dr. FRANCIS WALTER, M.B.O.U.; Curator Zoological Museum, Government School of Medicine, Cairo, Egypt. (March, 1903).
 ISAAC, CHARLES; Somerton, Bath Road, Slough. (March, 1906).
 IVENS, Miss, Moss Bank, Greenford Avenue, Hanwell, Middlesex. (August, 1903).
- JARDINE, Miss EMILY; Zungeru, Northern Nigeria, West Africa. (Jan., 1903).
 JOHNSTONE, Mrs. F. J.; Burrswood, Groombridge, Sussex. (May, 1900).
 JONES, H.; 13, Commercial Road, Ipswich. (Oct., 1903).
- KEMP, R.; c/o Mrs. Warner, Long Sutton, near Langport, Somersetshire. (March, 1903).
 KENNEDY, EWEN; c/o Messrs. Hamilton & Morrison, Iquique, Chile. (Feb., 1907).
 230 KENNEDY, Lt. G.; 4th Gurkha Rifles, Bakloh, Punjab, India. (Jan., 1908).
 KERR, N.; Primrose Club, Park Place, London, W. (Oct., 1906).
 KUSER, ANTHONY R.; Bernardsville, New Jersey, U.S.A. (Dec., 1908).
- LANCASTER, JOHN; Overslade, near Rugby. (March, 1904).
 LASCELLES, The Hon. GERALD, F.Z.S., M.B.O.U.; The King's House, Lyndhurst. (Oct., 1896).
 LAWSON, Mrs. F. W.; Adel, Leeds. (Nov., 1903).
 LEE, Mrs. F. D.; Hartwell House, Aylesbury. (July, 1906).
 LEECH, J. R.; Bryn Ivor, Abertillery, Mon. (March, 1908).
 LEEKE, Miss DOROTHY; 9, Hertford Street, Mayfair, W. (May, 1909).
 LEIGH, CECIL; Lyburn Park, near Lyndhurst, Hants. (Nov., 1906).
 240 LEWIS, W. JARRETT; Corstorphine, Ryde, I. of W. (Oct., 1904).
 LIBRARY OF PRINCETON UNIVERSITY; Princeton, New Jersey, U.S.A., (Nov., 1907).
 LILFORD, The Lady; Lilford Hall, Oundle, Northamptonshire. (Jan., 1898).
 LITTLE, GEO. W., M.D.; 47, Ridge Street, Glens Fall, N.Y., U.S.A. (Oct., 1903).

- LITTLE, Miss C. ROSA; Baronshalt, The Barons, East Twickenham, Surrey. (May, 1907).
- LLEWELYN, Sir JOHN T. DILLWYN, Bart, M.A., D.L., F.Z.S.; Penllergaer, Swansea. (May, 1903).
- LOCKYER, ALFRED; Ashbourne, Selsden Road, Wanstead. (Dec., 1905).
- LODGE, GEORGE E., F.Z.S., M.B.O.U.; The Studios, 5, Thurloe Square, S.W. (Aug., 1905).
- LONG, Mrs.; Sherrington Manor, Berwick, Sussex. (Feb., 1907).
- LONGDON, Mrs.; Arreton, Epsom Road, Guildford, Surrey. (March, 1908).
- 250 LOVELAKE, The Countess of; Wentworth House, Chelsea Embankment, London, S.W. (May, 1906).
- LYON, Miss K.; Harewood, Horsham. (Nov., 1894).
- MACCALL, Miss; The Rest, Church Crookham, Fleet, R.S.O., Hants. (May, 1904; dormant).
- MCDONALD, Miss BERYL; Meadow Bank, St. Leonards-on-Sea. (Dec., 1906).
- MCGEAGH, Dr. R. T.; 23, Breeze Hill, Bootle, Lancs. (Aug., 1908).
- MCGEE, The Rev. Father; Keppel Street, Bathurst, N.S.W. (July, 1908).
- MCLEAN, COLIN; The Heath, East Dereham, Norfolk. (Nov., 1906).
- MCWILLIAM, Miss; 61, Elm Park Mansions, S.W. (Dec., 1907).
- MAGNIAC, CLAUDE; The Cottage, Ashted Park, Ashted, Surrey. (March, 1908).
- MANNERS-SMITH, Major J.; The Residency, Nepal, India. (March, 1909).
- 260 MANSON, JOHN J., L.D.S., F.P.S.G.; 167, Canning Street, Bridgeton Cross, Glasgow. (Oct., 1908).
- MARSHALL, ARCHIBALD MCLEAN; Crogen, Corwen, N. Wales. (Jan., 1906).
- MARTIN, H. C.; 147, Victoria Road, Old Charlton, Kent; and Saladero. Liebig, Fray Bentos, Uruguay. (Jan., 1897).
- MATHIAS, HAYWARD W.; Lucerne, Stubbington, Fareham, Hants.
- MARTORELLI, Dr. GIACINTO, M.B.O.U., etc.; Collezione Turati, Museo Civico di Storia Naturale, Milan, Italy. (July, 1906). (*Honorary Member*).
- MEADE-WALDO, E. G. B., F.Z.S., M.B.O.U.; Stonewall Park, Edenbridge, Kent. (Jan., 1895).
- MELLOR, Mrs.; Fair Lawn, Lytham, Lancs. (March, 1904).
- MICHELL, Mrs.; Crakehall, Bedale. (Sept., 1898).
- MILLER, TINNISWOOD, 27, Belgrave Road, S.W. (March, 1905).
- MILLS, The Hon. VIOLET; Wilderness, Sevenoaks. (Oct., 1907).
- 270 MILLSUM, O.; Regent Street, Swindon. (Aug., 1909).
- MITCHELL, HARRY; Holmefield, Lyndhurst, Hants. (Feb., 1904).
- MITCHELL, P. CHALMERS, M.A., D.Sc., F.R.S., Secretary to the Zoological Society of London; 3, Hanover Square, W. (Aug., 1905).
- MOERSCHEL, F.; Imperial Hotel, Malvern. (June, 1895).
- MOMBER, Lt.-Col. G. A., F.Z.S.; La Junia, San Remo, Italy. (Sept., 1907).
- MONTAGU, E. S., M.P., M.B.O.U.; Trinity College, Cambridge, and 12, Kensington Palace Gardens, W. (May, 1905).

- MOORE, WM. FAWCETT; Ballyanchor Poultry Farm, Lismore, co. Waterford. (Aug., 1903).
- MORSHEAD, Lady; Forest Lodge, Binfield, Bracknell, Berks. (Dec., 1894).*
- MORTIMER, Mrs.; Wignmore, Holmwood, Surrey. (Orig. Mem.)*
- MUNDIS, Miss SYBIL MILLER; Shipley Hall, Derby. (Jan., 1909).
- 280 MURRAY, A. I. KEITH, I, Chudleigh Villas, Bideford, N. Devon. (Aug., 1908).
- MURRAY, JOHN; 25, Glasgow Street, Androssan. (March, 1903).
- MYLAN, JAS. GEORGE, B.A., M.B. (Univ. Cal.); I.R.C.P. & L.R.C.S., (Ed.) &c., 90, Upper Hanover Street, Sheffield. (Dec., 1901).
- NEWMAN, T. H., F.Z.S., M.B.O.U.; Newlands, Harrowdene Road, Wembley, Middlesex. (May, 1900).
- NICHOLS, WALTER B., M.B.O.U.; Stour Lodge, Bradfield, Manningtree. (Jan., 1907).
- NICOLL, MICHAEL J., M.B.O.U.; Zoological Gardens, Giza, Cairo, Egypt. (July, 1906).
- NICHOLSON, ALFRED E.; Blenheim, Forth View Terrace, Blackhall, Midlothian. (Oct., 1906).*
- NOBLE, Mrs.; Park Place, Henley-on-Thames. (Oct., 1900).
- NORWOOD, EILEE; 28, St. Stephen's Mansions, Smith Square, Westminster, S.W. (Aug., 1901).
- OAKLEY, W.; 34, High Street, Leicester. (March, 1896).*
- 290 OATES, F. W.; White House Farm, New Leeds, Leeds. (Oct., 1897).
- OBERHOLSER, HARRY C.; 1445, Girard Street, N.W., Washington, D. C., United States of America. (Oct., 1903).
- ODLING, Mrs.; The Shepherd's Cot, Tankerton. Kent. (Aug., 1905; dormant 1906-7).
- OGILVIE-GRANT, W. R., F.Z.S., M.B.O.U.; British Museum (Nat. Hist.), Cromwell Road, S.W. Dec., 1903).
- OGILVY, HENRY S. T. HAMILTON; Biel, Prestonkirk, N.B. (March, 1900).
- OGLE, BERTRAM SAVILE, M.B.O.U.; Steeple Ashton, Oxford. (Dec., 1902).
- OLIPHANT, TREVOR; Teston Rectory, Maidstone. (May, 1908).
- O'REILLY, NICHOLAS S.; 80, Marine Parade, Brighton, Sussex. (Dec., 1894).
- OSTREHAN, J. ELIOTT D.; Bank House, Thame, Oxon. (April, 1903).
- PAGE, WESLEY T., F.Z.S.; 6, Rylett Crescent, Shepherd's Bush, W. (May, 1897).
- 300 PAINTER, K. V.; 2508, Euclid Avenue, Cleveland, Ohio, U.S.A. (Dec., 1909).
- PALMER, Mrs. G. W.; Marlston House, near Newbury. (Oct., 1905).
- PAM, ALBERT, F.Z.S.; 35, Chester Terrace, N.W. (Jan., 1906).
- PARKER, DUNCAN, J.P.; Clopton Hall, Woolpit, Bury St. Edmunds. (June, 1903).
- PARKIN, THOMAS. M.A., F.R.G.S., F.Z.S., M.B.O.U.; Fairseat, High Wickham, Hastings. (Oct., 1903).
- PAUWEL, R.; Everberg, par Cortenboys, Brabant, Belgium. (Dec., 1904).

- PAYNE, WALTER HENRY; Lyncombe Hall, Bath. (March, 1907).
- PEEL, Lady; Potterton Hall, Barwick-in-Elmet, Leeds. (June, 1904).
- PEIR, P.; Box 504, G.P.O., Sydney; and 50, Bondi Road, Waverley, Sydney, N. S. Wales. (July, 1903).
- PENNANT, Lady EDITH DOUGLAS; Soham House, Newmarket, Cambs. (Sept., 1908).
- 310 PENROSE, FRANK G., M.D., F.Z.S., M.B.O.U.; Wick House, Downton, Salisbury. (Dec., 1903).
- PERCIVAL, WALTER GILBEY; El Damer, Soudan. (Feb., 1902).
- PERREAU, Capt. G. A.; 2/4 Gurkha Rifles, Bakloh, Punjab, India. (Dec., 1903).
- PERRING, C. S. R.; Melic House, Waldegrave Road, Teddington. (Sept., 1895).
- PHILLIPPS, NOEL; 21, Addison Gardens, Kensington, W. (Nov., 1901).
- PHILLIPPS, REGINALD; 26, Cromwell Grove, West Kensington Park, W. (Orig. Meml.)*
- PHILLIPPS, Mrs.; 26, Cromwell Grove, West Kensington Park, W. (Orig. Meml.)
- PHILLIPS, Mrs. E. LORT, F.Z.S.; 79, Cadogan Square, S.W. (April, 1907).
- PICARD, HUGH K.; 10, Sandwell Crescent, W. Hampstead, N.W. (March, 1902).
- PICKFORD, RANDOLPH JOHN; Job's Hill House, Crook, co. Durham. (Feb., 1903).
- 320 POCOCK, R. I., F.L.S., F.Z.S., M.B.O.U.; Zoological Society's Gardens, Regent's Park, N.W. (Feb., 1904).
- POWER, Miss CONSTANCE E.; 16, Southwell Gardens, S.W. (Nov., 1906).
- POWIS, The Earl of; 45, Berkeley Square, W.; and Powis Castle, Welshpool. (April, 1902).
- PROCTOR, Major F. W., M.B.O.U.; Downfield, Maidenhead. (May, 1903).
- PYCRAFT, W. P., A.L.S., F.Z.S., M.B.O.U., &c.; British Museum (Nat. Hist.) Cromwell Road, S.W. (Nov., 1904).
- RATHBORNE, HENRY B.; Dunsinea, Castleknock, co. Dublin. (May, 1901).
- RATTIGAN, G. E.; Lanarkslea, Cornwall Gardens, S.W. (Aug., 1908).
- REID, Mrs.; Funchal, Madeira. (Feb., 1895).
- RENAUT, W. E., M.B.O.U.; 17, Emmanuel Avenue, Friar's Park, Acton, W. (April, 1897).
- RICE, Captain G.; Glayquhat, Blairgowrie, N.B. (May, 1902).
- 330 RILEY, JOSEPH H.; U.S. National Museum, Washington, D.C., U.S.A. (June, 1906).
- RIPLEY, Miss; Bedstone, Bucknell, Shropshire. (March, 1908).
- RITCHIE, NORMAN; The Holmes, St. Boswell's N.B. (Feb., 1903).
- ROBBINS, HENRY; 25, Campden Hill Square, W. (April, 1908).
- ROBERT, Madam; Hartland House, Sutton, Surrey. (June, 1906).
- ROBERTS, Mrs., M. Anst., O.J.; Beaumaris, Montpelier Street, Hobart, Tasmania. (June, 1903).
- ROBERTS, Mrs. NORMAN; The Beeches, Baslow, Derbyshire. (Nov., 1907).
- RODON, Major G. S.; Dharwar, Bombay Presidency, India. (Mar., 1906).

- ROGERS, Lt.-Col. J. M., D.S.O., F.Z.S., M.B.O.U. (Late Royal Dragoons); Riverhill, Sevenoaks. (April, 1907).
- ROGERSON, A.; Fleurville, Ashford Road, Cheltenham. (Dec., 1902).
- 340 ROTCH, Mrs.; Sunnyclyff, Cholmondeley Road, West Kirby. (June, 1897).
- ROTHSCHILD; The Hon. L. WALTER, M.P., D.Sc., F.Z.S., M.B.O.U.; The Museum, Tring, Herts. (Jan., 1900).
- RUDKIN, F. H.; Belton, Uppingham. (Oct., 1902).
- ST. QUINTIN, WILLIAM HERBERT, F.Z.S., M.B.O.U.; Scampston Hall, Rillington, York. (Orig. Mem.)
- ST. QUINTIN, Miss; Scampston Hall, Rillington, York. (Jan., 1902).
- SAITER, ALBERT J.; Nevill Street, Abergavenny. (March, 1902).
- SAVAGE, A.; 3, Rue Gilbert. Rouen, Seine Inférieure, France. (April, 1895).
- SCHARFF, R. F., Ph.D., Secretary to the Royal Zoological Society of Ireland; Phoenix Park, Dublin. (Oct., 1905).
- SCHERREN, HENRY, F.Z.S., M.B.O.U.; 9, Cavendish Road, Harringay, N. (Dec., 1902).
- SCIATER, W. L., M.A., F.Z.S., El Paso Club, Colorado Springs, Colorado, U.S.A. (Aug., 1904).
- 350 SCIATER, PHILIP LUTLEY, M.A., D.Sc., F.Z.S., M.B.O.U.; Odiham Priory, Winchfield, Hants. (Sept., 1902). (*Honorary Member*).
- SCOTT, Professor WILLIAM E. D.; Worthington Society, Shawnee-on-Delaware, Pennsylvania, U.S.A. (June, 1900).
- SEBRIGHT, Mrs. GUY; 82, Eaton Place, S.W. (Dec., 1907).
- SEPPINGS, Captain J. W. H.; The Army Accounts Office, Cork, Ireland. (Sept., 1907).
- SETH-SMITH, DAVID, F.Z.S., M.B.O.U.; 34, Elsworthy Road, South Hampstead, N.W. (Dec., 1894).
- SETH-SMITH, LESLIE, M., B.A., M.B.O.U.; Alleyne, Caterham Valley, Surrey; and Kampala, Uganda. (July, 1902).
- SETH-SMITH, Mrs. W.; Alleyne, Caterham Valley, Surrey. (Sept., 1904).
- SHARPE, RICHARD BOWDLER, I.L.D., F.L.S., F.Z.S., M.B.O.U., Assistant Keeper, Zoological Department, British Museum (Natural History); South Kensington, S.W. (Sept. 1902). (*Hon. Member*).
- SHELLEY, Captain GEORGE ERNEST, F.Z.S., F.R.G.S., M.B.O.U.; 39, Egerton Gardens, South Kensington, S.W. (August, 1903).
- SHEPHERD, Miss B.; The Den, Walton-on-Thames. (April, 1901).
- 360 SHERBROOKE, Mrs. P.; Ravenswyke, Kirbymoorside, Yorks. (March, 1897).
- SICH, HERBERT LEONARD; Corney House, Chiswick, Middlesex. (Feb., 1902).
- SILVER, ALLEN; 11, Foulser Road, Upper Tooting, S.W. Aug., 1904).
- SIMPSON, ARCHIBALD; Blackgates House, Tingley, near Wakefield. (Feb., 1901).
- SINGH, H.H. The Rajah Sir BHURI, K.C.S.I.; Chamba, via Dalhousie, Punjab, India. (Jan., 1908).
- SKRA, E. M.; (Box 373), Pretoria, South Africa. (Jan., 1907).

- SLATER, ARTHUR A.; Keswick Road, St. Helen's. (Nov., 1894).
- SMITH, C. BARNBY; Woodlands, Retford. (August, 1906).
- SMITH; Miss E. L. DORIEN; Tresco Abbey, Isle of Scilly, Cornwall, (August, 1908).
- SMITH, The Rev. JAMES, M.A.; The Vicarage, Baslow, S.O., Derbyshire. (May, 1907).
- 370 SONDHEIM, EDWARD; Welford House, Arkwright Road, Hampstead, N.W. (April, 1907).
- SORNBORGER, J. D.; Rowley, Mass, U.S.A. (Oct., 1905).
- SOUTHESK, The Countess of; Kinnaird Castle, Brechin, N.B. (Feb., 1901).
- SOUTHPORT CORPORATION; W. JAMES HATHAWAY, Curator; Hesketh Park, Southport. (Jan., 1904).
- SPEED, HEDLEY; 12, Victoria Park, Bangor, Wales. (Nov., 1900).
- STALKER, WILFRED; Loughrigg House, Ambleside. (Dec., 1908).
- STANSFELD, Captain JOHN; Dunninald, Montrose, N.B. (Dec., 1896).
- STANYFORTH, Mrs.; Kirk Hamerton Hall, York. (Nov., 1897).
- STAPLES-BROWNE, R.; Bampton, Oxfordshire. (Aug., 1908).
- STARK, W. P.; Hillstead, Basingstoke. (August, 1903).
- 380 STIRLING, Mrs: CHARLES; Old Newton House, Doune. (Sept., 1904).
- STOCKPORT CORPORATION; FRANK HARRIS, F.R.H.S., Superintendent; Vernon Park, Stockport. (Oct., 1902).
- STURTON-JOHNSON, Miss; Orotava House, Ore, Hastings. (May, 1897).
- SUFFOLK and BERKSHIRE, The Countess of; Charlton Park, Malmesbury. (Feb., 1909).
- SUGGITT, ROBERT; Suggitt's Lane, Cleethorpes, Grimsby. (Dec., 1903).
- SUTCLIFFE, ALBERT; Field House, Grimsby. (Feb., 1906).
- SUTTON, Lady; Benham-Valence, Speen, Newbury. (Dec., 1901).
- SWAN, J. A.; Meadow View, Northcote Road, Sidcup, Kent. (June, 1902).
- SWAYSLAND, WALTER; 47, Queen's Road, Brighton. (Orig. Mem.) *
- SWIFT, DONALD; 58, Avenue Road, Highgate. (Dec., 1898).
- 390 TANNER, Dr. FRANK L.; Vanvert House, Guernsey. (Jan., 1904).
- TANNER, Mrs. SLINGSBY; 62, Cheyne Court, Chelsea, S.W. (Oct., 1906).
- TEMPLE, W. R.; Ormonde, Datchet, Bucks. (June, 1907).
- TERRY, Major HORACE A., M.B.O.U. (late Oxfordshire Light Infantry); The Lodge, Upper Halliford, Shepperton. (Oct., 1902).
- TESCHEMAKER, W. E., B.A.; Ringmore, Teignmouth, Devon. (May, 1904).
- THOM, Mrs. WALTER; Wirswall Hall, Whitchurch, Salop. (Aug., 1908).
- THOMAS, HENRY; The Vineries, Boroughbridge, York. (Jan., 1895).
- THOMAS Miss F. G. F.; Hurworth Manor, Darlington. (March, 1899).
- THOMAS, Mrs. HAIG; Creech Grange, Wareham. (August, 1907).
- THOMASSET, BERNARD C., F.Z.S.; Hawkenbury, Staplehurst, Kent. (July, 1896).
- 400 THOMASSET, H. P.; Cascade Estate, Mahé, Seychelles Islands. (Nov., 1906).

- THOMPSON, Mrs. F. F.; Canadaigua, N.Y., U.S.A. (July, 1907).
- THOMSON, JOHN; Officers Orders, Powder Mill Lane, Waltham Abbey. Essex. (March, 1908).
- THORNILEY, PERCY WRIGHT; Shooter's Hill, Wem., Shrewsbury. (Feb., 1902).
- THORPE, CHARLES; Selborne, Springfield Road, Wallington, Surrey. (Dec., 1901).
- THORPE, F. C.; The Zoo, Sunnyside, Worksop. (Jan., 1902).
- THURSBY, Lady; Ormerod House, Burnley. (June, 1895).*
- TICEHURST, NORMAN FREDERIC; M.A., M.B., F.R.C.S., F.Z.S.; 35, Pevensey Road, St. Leonards-on-Sea. (Dec., 1906).
- TOMES, W., J.P.; Glenmoor, 31, Billing Road, Northampton. (Dec., 1902).
- TOWNSEND, STANLEY M.; 3, Swift Street, Fulham, S.W. (Sept., 1898).
- 410 TOYE, Mrs.; Stanhope, Bideford, N. Devon. (Feb., 1897).
- TRESTRAIL, Mrs.; Southdale, Clevedon. (Sept., 1903).
- TREVOR-BATTYE, AUBYN B. R., M.A., F.L.S., etc; Broxton, Chilbolton, Stockbridge, Hants. (July, 1898).
- TURNER, THOMAS, J.P.; Cullompton, Devon. (Dec., 1895).
- TWEEDIE, Capt. W., 93rd Highlanders; c/o Messrs. Cox & Co., 16, Charing Cross, S.W. (April, 1903).
- VALENTINE, ERNEST; 7, Highfield, Workington. (May, 1899).
- VERE, The Very Rev. Canon; St. Patrick's Presbytery, 21A, Soho Square, London, W. (Sept., 1903).
- VERNON, Mrs. F. WARREN; Toddington Manor, Dunstable, Bedfordshire. (Nov., 1907).
- VILLIERS, Mrs.; The Shielding, Ayr, N.B. (August, 1906).
- VIVIAN, Mrs.; Timber Hill Lodge, Caterham Valley, Surrey. (March, 1903).
- 420 WADDELL, Miss PEDDIE; 4, Great Stuart Street. Edinburgh, N.B. (Feb., 1903).
- WAIT, Miss L. M- ST. A.; 12, Rosary Gardens, S.W. (Feb., 1909).
- WALKER, Miss; Hanley Lodge, Corstorphine, Midlothian. (Jan., 1903).
- WALKER, Miss H. K. O.; Chesham, Bury. Lancs. (Feb., 1895).
- WALLOP, The Hon. FREDERIC; (Feb., 1902).
- WALTERS, Colonel FRANCIS DALREMPLE; Rougemont, St. John's Park, Ryde, Isle of Wight. (May, 1909).
- WARDE, The Lady HARRIET; Knotley Hall, Tunbridge. (Aug., 1903).
- WATERHOUSE, Mrs. D.; 6, Esplanade, Scarborough. (Feb., 1903).
- WATSON, S.; 37, Tithebarn Street, Preston. (Feb., 1906).*
- WEST, COLIN; The Grange, South Norwood Park. (Jan., 1906).
- 420 WEST, Miss E. E.; The Homestead, Hawthorne Road, Bickley Park, Kent. (April, 1898).*
- WHITAKER, JOSEPH I. S., F.Z.S., M.B.O.U.; Malfitano, Palermo, Sicily. (August, 1903).
- WHITEHEAD, Mrs. HENRY; Haslem Hey, Bury, Lancs. (March, 1902).
- WHITMAN, Prof. C. O.; The University of Chicago, U.S.A. (Mar., 1908).

- WIGELSWORTH, JOSEPH, M.D., M.B.O.U.; Rainhill, Lancashire. (Oct. 1902).
- WILDE, Miss M.; Little Gaddesden, Berkhamstead. (Dec., 1896).
- WILFORD, HENRY; Upland View, Haven Street, Ryde, I. of W. (Nov., 1907).
- WILLIAMS, Mrs. C. H.; 49, Oakehampton Road, St. Thomas, Exeter. (May, 1902).
- WILLIAMS, C. J.; Government Offices, Bloemfontein, O. R. C. (Oct., 1906).
- WILLIAMS, Mrs. HOWARD; Oatlands, Sunbridge Avenue, Bromley, Kent. (April, 1902).
- 440 WILLIAMS, SYDNEY, Jun., F.Z.S.; Holland Lodge, 275, Fore Street, Edmonton, N. (Feb. 1905).
- WILLS, Mrs. H. H.; Barley Wood, Wrington, R.S.O., Somerset. (Nov., 1906).
- WILMOT, The Rev. RICHARD H.; Bishopstone Rectory, Hereford. (Dec., 1902).
- WILSON, Captain P. A.; Manor House, Droxford, Hants. (Sept., 1909).
- WILSON, MAURICE A., M.D.; Kirkby Overblow, Pannal, S. O., York. (Oct., 1905).
- WILSON, T. NEEDHAM; Oak Lodge, Bitterne, near Southampton. (Dec., 1901).
- WINCHILSEA and NOTTINGHAM, The Countess of; Harlech, Merioneth. (April, 1903).
- WOLFE, Miss GEORGINA; S. John's, 57, Granada Road, E. Southsea. (August, 1904).
- WORKMAN, WM. HUGHES, M.B.O.U.; Lismore, Windsor, Belfast. (May, 1903).
- WORMALD, H.; The Heath, Dereham, Norfolk. (Dec., 1904).
- 450 WRIGHT, R. N.; Aston Hall, Aston-by-Stone, Staffordshire. (Dec. 1908).
- YOUNGER, Miss BARBARA HENDERSON; 4, Douglas Gardens, Edinburgh. (July, 1909).
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RULES OF THE AVICULTURAL SOCIETY.

As Amended January, 1908.

1.—The name of the Society shall be THE AVICULTURAL SOCIETY and its object shall be the study of Foreign and British Birds in freedom and in captivity. Poultry, Pigeons, and Canaries shall be outside the scope of the Society. The year of the Society, with that of each volume of the Society's Magazine, which shall be known as *The Avicultural Magazine*, shall commence with the month of November and end on the 31st of October following.

2.—The Avicultural Society shall consist of Ordinary and Honorary Members; and the latter shall be restricted in number to six, and be elected by the Council.

3.—The Officers of the Society shall be elected, annually if necessary, by Members of the Council in manner hereinafter provided, and shall consist of a President, one or more Vice-Presidents, a Business Secretary, a Correspondence Secretary, an Editor, a Treasurer, an Auditor, a Scrutineer, and a Council of fifteen Members. The Secretaries, Editor, and Treasurer, shall be *ex officio* Members of the Council.

4.—New Members shall be proposed in writing, and the name and address of every person thus proposed, with the name of the Member proposing him, shall be published in the next issue of the Magazine. Unless the candidate shall, within two weeks after the publication of his name in the Magazine, be objected to by at least two Members, he shall be deemed to be duly elected. If five Members shall lodge with the Business Secretary objections to any candidate he shall not be elected, but the signatures to the signed objections must be verified by the Scrutineer. If two or more members (but less than five) shall object to any candidate, the Secretary shall announce in the next number of the Magazine that such objections have been lodged (but shall not disclose the names of the objectors), and shall request the Members to vote upon the question of the election of such candidate. Members shall record their votes in sealed letters addressed to the Scrutineer, and a candidate shall not be elected unless two thirds of the votes recorded be in his favour; nor shall a candidate be elected if five or more votes be recorded against his election.

5.—Each member shall pay an annual subscription of 10/-, to be due and payable in advance on the 1st of November in each year. New Members shall pay in addition, an entrance fee of 10/6; and, on payment of their entrance fee and subscription, they shall be entitled to receive all the numbers of the Society's Magazine for the current year.

6.—Members intending to resign their membership at the end of the current year of the Society are expected to give notice to the Business Secretary before the first of October, so that their names may not be included in the "List of Members," which shall be published annually in the November number of the Magazine.

7.—The Magazine of the Society shall be issued on or about the first day of every month,* and forwarded, post free, *to all the Members who shall have paid their subscriptions for the year; but no Magazine shall be sent or delivered to any Member until the annual subscription shall have reached the hands of the Business Secretary.* Members whose subscriptions shall not have been paid as above by the first day in September in any year shall cease to be members of the Society, and shall not be re-admitted until a fresh entrance fee, as well as the annual subscription, shall have been paid.

8.—The Secretaries, Editor, and Treasurer shall be elected for a term of five years, and should a vacancy occur, it may be temporarily filled up by the Executive Committee (see Rule 10). At the expiration of the term of five years in every case, it shall be competent for the Council to nominate the same officer, or another Member, for a further term of five years, unless a second candidate be proposed by not less than twenty-five members of at least two years standing, as set forth below.

In the September number of the Magazine preceding the retirement from office of the Secretaries, Editor, or Treasurer, the Council shall publish the names of those gentlemen whom they have nominated to fill the vacancies thus created; and these gentlemen shall be deemed duly elected unless another candidate or candidates be proposed by not less than fifteen Members of at least two years standing. Such proposal, duly seconded and containing the written consent of the nominee to serve, if elected, in the capacity for which he is proposed, must reach the Business Secretary, on or before the 15th of September.

The Council shall also publish yearly in the September number of the Magazine the names of those gentlemen nominated by them for the posts of Auditor and Scrutineer respectively.

9.—The Members of the Council shall retire by rotation, two at the end of each year of the Society (unless a vacancy or vacancies shall occur otherwise) and two other Members of the Society shall be recommended by the Council to take the place of those retiring. The names of the two Members recommended shall be printed in the September number of *The Avicultural Magazine*. Should the Council's selection be objected to by fifteen or more members, these shall have power to put forward two other candidates whose names, together with the signatures of no less than fifteen Members proposing them, must reach the Hon. Business Secretary

* Owing to extra pressure of work, the October and November numbers are liable to be late.

by the 15th of September. The names of the four candidates will then be printed on a voting paper and sent to each member with the October number of the Magazine, and result of the the voting published in the November issue. Should no alternative candidates be put forward, in the manner and by the date above specified, the two candidates recommended by the Council shall be deemed to have been duly elected. In the event of an equality of votes the President shall have a casting vote.

If any member of the Council does not attend a meeting for two years in succession, the Council shall have power to elect another Member in his place.

10.—Immediately after the election of the Council, that body shall proceed to elect three from its Members (*ex officio* Members not being eligible). These three, together with the Secretaries and Editor, shall form a Committee known as the Executive Committee. Members of the Council shall be asked every year (whether there has been an election of that body or not) if they wish to stand for the Executive, and in any year when the number of candidates exceeds three there shall be an election of the Executive.

The duties of the Executive Committee shall be as follows :

- (i). To sanction all payments to be made on behalf of the Society ;
- (ii). In the event of the resignation of any of the officers during the Society's year, to temporarily fill the vacancy until the end of the year. In the case of the office being one which is held for more than one year (*e. g.* Secretaries, Editor, or Treasurer, the appointment shall be confirmed by the Council at its next meeting.

To act for the Council in the decision of any other matters that may arise in connection with the business of the Society.

The decision of any matter by the Executive to be settled by a simple majority (five to form a quorum). In the event of a tie on any question, such question shall be forthwith submitted by letter to the Council for their decision.

The Executive shall not have power

- (i). To add or alter the Rules ;
- (ii). To expel any member ;
- (iii). To re-elect the Secretaries, Editor, or Treasurer for a second term of office.

It shall not be lawful for the Treasurer to pay any account unless such account be duly initialed by the executive.

It shall be lawful for the Business Secretary or Editor to pledge the Society's credit for a sum not exceeding £15.

Should a Member wish any matter to be brought before the Council direct, such matter should be sent to the Business Secretary

with a letter stating that it is to be brought before the Council at their next meeting; otherwise communications will in the first place be brought before the Executive.

A decision of a majority of the Council, or a majority of the Executive endorsed by the Council, shall be final and conclusive in all matters.

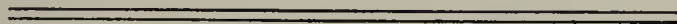
11.—The Editor shall have an absolute discretion as to what matter shall be published in the Magazine (subject to the control of the Executive Committee). The Business Secretary and Editor shall respectively refer all matters of doubt and difficulty to the Executive Committee.

12.—The Council (but not a Committee of the Council) shall have power to alter and add to the Rules, from time to time, in any manner they may think fit. Five to form a quorum at any meeting of the Council.

13.—The Council shall have power to expel any Member from the Society at any time without assigning any reason.

14.—Neither the Office of Scrutineer nor that of Auditor shall be held for two consecutive years by the same person.

15.—The Scrutineer shall not reveal to any person how any Member shall have voted.



THE SOCIETY'S MEDAL.

R U L E S .

The Medal may be awarded at the discretion of the Committee, to any member who shall succeed in breeding, in the United Kingdom, any species of bird which shall not be known to have been previously bred in captivity in Great Britain or Ireland. Any member wishing to obtain the Medal must send a detailed account for publication in the Magazine within about eight weeks from the date of hatching of the young and furnish such evidence of the facts as the Executive Committee may require. The Medal will be awarded only in cases where the young shall live to be old enough to feed themselves, and to be wholly independent of their parents.

The account of the breeding must be reasonably full so as to afford instruction to our Members, and should describe the plumage of the young and *be of value as a permanent record of the nesting and general habits of the species*. These points will have great weight when the question of awarding the Medal is under consideration.

The parents of the young must be the *bonâ fide* property of the breeder. An evasion of this rule, in any form whatever, will not only disqualify the breeder from any claim to a Medal in that particular instance, but will seriously prejudice any others claim he or she may subsequently advance for the breeding of the same or any other species.

In every case the decision of the Committee shall be final.

The Medal will be forwarded to each Member as soon after it shall have been awarded as possible.

The Medal is struck in bronze (but the Committee reserve the right to issue it in *silver* in very special cases), and measures $2\frac{1}{2}$ inches in diameter. It bears on the obverse a representation of two birds with a nest containing eggs, and the words "The Avicultural Society—founded 1894." On the reverse is the following inscription: "Awarded to (*name of donee*) for rearing the young of (*name of species*), a species not previously bred in captivity in the United Kingdom."

Members to whom Medals have been Awarded.

- For a list of the Medal awards during the first series see Vol. II (*New Series*), p. 18.
 For a list of the Medal awards during the New Series see Vol. VI. (*New Series*), p.p. 20-22,
 and Vol. VII. (*New Series*), p. 20.
- Vol. VI., p. 257. Mr. W. E. TESCHEMAKER, for breeding the Dwarf Ground Dove (*Chamæpelia griseola*), in 1908.
- „ „ p. 337. Mr. T. H. NEWMAN, for breeding the Partridge Bronze-wing Pigeon (*Geophaps scripta*), in 1908.
- „ „ p. 345. Mr. C. BARNBY SMITH, for breeding the Black Francolin (*Francolinus vulgaris*), in 1908.
- Vol. VII., p. 208. Mr. W. E. TESCHEMAKER, for breeding the Cinnamon Tree Sparrow (*Passer cinnamomeus*), in 1908.



Avicultural Magazine,

BEING THE JOURNAL OF THE

AVICULTURAL SOCIETY.

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NOVEMBER, 1909.

THE ABYSSINIAN LOVE-BIRD.

Agapornis taranta.

By HUBERT D. ASTLEY.

When paying an afternoon visit to some friends when I was in Italy last March, my hostess was so grateful to me for dosing a sick Black-capped Lory, which had been ailing for a day or two, and which after the dose promptly laid a fine egg, that she presented me with a pair of Abyssinian Love-Birds.

On entering a sitting-room I caught sight of these birds in a cage in a corner of the room, and on asking what they were, before I went up to them to make a closer examination, my hostess said they were only some little common green parrakeets which she had purchased in Genoa for twelve francs.

On going up to their cage, I said, "They may be common to you, but they certainly are not so to *me*, for I have never seen the species before." Upon which the kind lady answered, "Oh well, do take them, it will be a little return for having saved my Lory's life."

As I found she did not set great store by them, in spite of their rarity, I complied. They lived happily until I brought them to England in June, when seeing they were inclined to rest, I put them in a large aviary amongst Parrakeets and Black-capped Love-Birds. Immediately they began eagerly to explore the nesting boxes, but most unfortunately the male bird selected a very deep one, which larger parrots seemed to appreciate, and inside of which they had gnawed away (unbeknown to me) all the perches that had been placed to assist them in ascending and descending to the hollowed space at the bottom of the

box. Into this death-trap popped the poor male Abyssinian *Agapornis*.

Two days went by, and as I could only see the hen bird, I began to take alarm. A ladder was put in the aviary. In the very first nesting-box that I took down, there was my poor bird as dead as he could be!

* * * *

Moral! No more deep nesting-boxes!

* * * *

These Abyssinian Love-Birds are the largest of their species, although I suppose the Rosy-faced ones run them fairly closely. The male is easily distinguished from the female, as she has no red about the head.

From what I could see, they are birds that would nest readily; indeed I fancy my widowed hen has laid some eggs in spite of her being a widow. And they ought to be hardy, for I believe they dwell in fairly high altitudes amongst the Abyssinian mountains.

NOTES ON MY VISIT TO AUSTRALIA.

By DAVID SETH-SMITH, F.Z.S., M.B.O.U.

(Continued from page 214, Vol. VII.)

THE NATIONAL PARK.

Situated some sixteen miles south of the metropolis of New South Wales is an area of some 36,000 acres of perfectly wild country, which has been set apart as an immense recreation ground for the people, and called the National Park. It consists for the most part of high table-land, varying in altitude from 350 to 900 feet above sea level. It is bounded on the east by the ocean, and is mostly covered with thick forest. Through the Park runs the Port Hacking River, the lower reaches of which are tidal and contain any number of salt-water fish—the celebrated Schnapper, the red bream, the black rock cod, jew fish, whiting, flounder, and many others. Some way up the river a dam separates the salt from the fresh water, and above this dam one can row for miles along the most beautiful river scenery. The banks are for the most part steep and rocky and thickly wooded.

The trustees of this beautiful park are doing their utmost

to preserve the indigenous fauna and flora; rangers have their stations and their beats, and to their energetic protection is due the fact that this is one of the very few places, perhaps the only place, in Australia, where the naturalist may be fairly certain, on any day, of seeing the Lyre Bird in its wild surroundings.

On the evening of February 22nd, 1908, Messrs. S. Le Souëf, H. and P. Peir, Coles and myself left Sydney, equipped with provender for the following day, our destination being National Park Station. On our way Mr. H. Peir pointed out a spot, not a dozen miles from the Metropolis itself, where he and others, when boys, used to shoot Turquoise Parrakeets *for pies*. Now no one knows where these Parrakeets have gone to, if indeed a single bird exists in its wild state!

Darkness had fallen when we arrived at our destination, but my companions knew the way well enough, and, shouldering our belongings, we followed the leader down a long winding roadway. On our right was thick scrub, while on our left, far below, we could just discern the silver winding line of the Port Hacking River as it made its way towards the sea. From every bush came the chirrup of crickets and cicadas, and the voices of innumerable frogs came up to us from the river below. A glimmering light at a window revealed the presence of the Government Accommodation House, a most comfortable wooden building, where we found excellent provision for the night.

A great deal was said by members of our party about rising with the sun or starting off in the morning before the sun was up, but I regret to say the sun was very well up before we made a start, certain members of our party being very loth to leave their comfortable beds.

We went to a boat house where there were many boats for hire, but it was too early for an attendant to be on duty. This did not however deter us, as neither boats nor oars were locked up, and we were very soon paddling down the river. The sun was by this time hidden behind heavy clouds which promised to loose their contents upon us in a short time. But the weather was very warm and, being well provided with waterproofs, we did not much mind if it rained or not. Semi-domesticated Black Swans and Wild Ducks (*A. superciliosa*) were very numerous on the

river, and before we had gone far we heard in the distance the unmistakable notes of the Lyre-bird. Every now and then a Laughing Jackass would be seen or heard, and such common birds as White-shafted Fantails and Honey-eaters were constantly with us. A large Water Lizard was detected sitting motionless on a stump which projected from the water, and we discussed the best means of capturing him. One of the party possessed a butterfly net and thought he might be secured in this. But just as the net was about to drop upon the motionless form it took on animation and disappeared with a splash into the water.

Gliding along silently in our boat we were apparently undetected by a Lyre-bird which had, presumably, come to drink at the river until the boat came up level with it. We detected a pheasant-like form with tail stretched out behind it running from the river's edge and ascending the steep banks with great hops from boulder to boulder.

The river wound its way into the wildest woodland scenery; great crags and boulders of rock projected from the banks, which were thickly wooded with gigantic eucalypti, some growing apparently out of the very rock itself, their huge roots twisted and woven into extraordinary shapes in their endeavour to force a way through some crack to where nourishment could be obtained. Magnificent cabbage-tree palms, tree ferns, banksias and numerous other beautiful forms of vegetation abounded, and, at that early part of the day there were no human beings, save ourselves, to spoil the scene of wild freedom that surrounded us.

We landed for breakfast and soon had burning the very necessary fire on which to make our "billy" tea. The little Red-eyebrowed Finch, or Sydney Waxbill, was here in some numbers, but was extraordinarily adept at hiding itself amongst the leaves of the bushes. The clear notes of the Lyre-bird came across the river from the opposite bank, and a Laughing Jackass, unaware of our presence suddenly appeared perched on a branch above. One glance earthward however revealed our proximity, and with a jerk of his tail he disappeared, hurling back mocking laughter at us.

By this time the rain, which had been threatening since we

started, commenced to descend in earnest and gave every prospect of a thoroughly wet day, but the temperature being high enough to make a little wetting rather pleasant than otherwise, we kept up our spirits and again took to our boat. Proceeding down the river we came to a spot where trunks of fallen trees were numerous in the water, and navigation became somewhat difficult. A Yellow-breasted Robin appeared on a branch projecting from the water, within a few feet of our boat, and allowed us to examine him at close quarters. The rain was now coming down in torrents, and as we noticed some large caves in the rocky banks of the river, we decided to land and take shelter.

In the crevices of the rock in which these caves are found live some very interesting little animals, mouse-like Marsupials of the genus *Phascologale*, at least we took them to belong to this genus, but, according to the authorities on these animals, all of this genus are said to be strictly arboreal, so these may have been some species of *Sminthopsis*, which are more terrestrial. At all events they were "Pouched Mice" of sorts, and we set to work to find their sleeping places and if possible to capture some of the creatures themselves. In crevices in the roofs of the caves we discovered their nests, mere bunches of dead leaves of the Eucalyptus. My friend Mr. S. Le Souëf pointed these out to me, or I should never have guessed what they were. We carefully pulled the leaves away and lay in wait to capture the inmates, but in every case they were too quick for us. Like lightning they dashed out and sped along the most minute ledges of the rock. I grabbed at one and managed to touch it, but only to make it tumble from one ledge to another, along which it dashed like a streak of brown lightning.

We got quite excited over the hunt for Marsupial Mice, and wandered quite a long way in search of their nests. While stepping from one rock to another a large Wallaby jumped up quite close to me and bounded away amongst the undergrowth of wattles and banksia. At another place a party of three or four Satin Bower-birds, all in green plumage, flew up from the ground. I shall never forget the beautiful notes of the Lyre-birds in this place. Often we heard them quite close to us, but we could rarely catch a glimpse of the bird itself. On three occasions

only, on this day, did we actually see these birds, and then we were quietly paddling down the river and they took very little notice of us. All these were males with fully developed tails which they carried in the same way as Pheasants. The Australians often call the Lyre-bird the Native Pheasant, and it is not to be wondered at, so very pheasant-like do they look at a little distance.

Wonga Pigeons are not uncommon in National Park, and we flushed several in the course of our rambles. Pennant and Rosella Parrakeets were common, and we saw also several Crow-Shrikes (*Strepera*), Thick-heads (*Pachycephala*), Sacred Kingfishers, and any number of different species of Honeyeaters.

As we rowed back towards the boat-house a couple of dark grey birds flew across the river and settled on a high tree at the water's edge, and my companions immediately identified them as Apostle Birds, or Grey Struthideas. Two is an unusual number of these birds to be seen at a time. They generally go about in small flocks of about a dozen, hence they have been termed "The twelve Apostles."

Thus ended a very delightful trip, only marred by the rain which hardly ceased, and the countless hordes of mosquitoes which, encouraged by the dampness of the atmosphere, gave us much more of their attention than we relished.

(*To be continued*).

THE BREEDING OF THE BLACK LORY.

(*Chalcopsittacus ater*).

By E. J. BROOK.

Two years ago Mr. Goodfellow brought from New Guinea three Black Lories (*C. ater*) which eventually found their way to my aviaries.

This little party consisted of one old cock, a young cock and a hen of uncertain age. They were all very tame and fearless and agreed together remarkably well.

In the spring of the present year it was noticed that the young cock and the hen had paired. Early in May, I think it

was, two eggs were laid in a large nesting box. These eggs proved clear, possibly because the whole family sat on them. About the middle of June another two eggs were laid, but as serious incubation did not begin for quite a week a like result to the first was anticipated.

However, serious incubation began at last, and this time the old cock was not allowed inside the box. The poor old fellow used to sit, the very picture of misery, on top of the box, and his delight when any one he knew would pet and cuddle him was quite pathetic.

In about a month my aviary man thought it time the eggs were removed, and his joy was great when he discovered a young bird about a week old in the nest. The period of incubation was evidently about three weeks.

When the young bird was about a fortnight old, the parents would leave it for about an hour every day, when they would wash and take exercise. They, however, did not leave the young bird without attendance, for the old one was sent into the nest to look after the baby and, by way of reward, he was again allowed into the nest box at night.

The young bird remained in the nest exactly two months and on leaving it was full-grown and fledged. The colouring is like the parents except for some small splashes of blood-red on the neck and ears, and the skin round the eyes and under the lower mandible is white.

The feeding throughout was the same as all my birds get, viz :—sop made with milk and barley-water, thickened with Mr. Millsum's "B.C." food, and occasionally a little biscuit or bread added for a change; also they had fruit.

As I think this will be the first true Lory reared in confinement, certainly in Great Britian, I hope my account may be of some small interest.

DARTFORD WARBLERS.

By ALLEN SILVER.

About the only reference to this little known Furze-Warbler that I can find indexed in the volumes of our journal is that in Vol. 4, N.S., No. 1, p. 26. Here Mr. E. G. B. Meade-Waldo mentions the fact of having seen it at the Frankfort Zoological Gardens. Elsewhere I can find but few references to it in captivity and this fact encourages me to briefly refer to such an instance at the present time. In Butler's "British Birds," Vol. I., p. 84, an extract is to be found which runs "The Dartford Warblers which Montagu kept in confinement were taken from the nest and reared by hand." These birds "began to sing with the appearance of their first mature feathers and continued in song all the month of October."

Swaysland says:—"In an aviary the bird is active and cheerful, and its graceful, sprightly movements cannot fail to attract attention; but it is rather difficult to keep in health. It should be fed the same as a Nightingale."

He does not mention having had one or that he had obtained such information from anyone in particular, although that may have been the case.

Going back to the time of Sweet, we find that he says:—"I have never been able to procure a living bird of this species, . . . should any of my subscribers be able to procure me one of them, or a nest of young ones, I should feel much obliged and would be willing to purchase it, or exchange any other sort that I have to spare in return."

Quite recently, however, I met Mr. John Frostick of Balham (a late original member) and he informed me that after trying for over twenty years he was at last the fortunate possessor of three young birds. Owing solely to his kindness I have been able to have them under close observation and have watched them assume their first winter plumage, which is getting more ashen and ruddy, and less brown, weekly. Like many other young birds they grew pugnacious and separation became necessary. In a large cage their movements are full of interest. They will come

close up to the wires and peer in one's face without a sign of fear, or will dart round displaying acrobatic performances extraordinary. On the other hand, they will fearlessly bathe before one, preen themselves and settle down on the perch and doze, taking little heed of what is otherwise going on.

One bird is a persistent and sweet songster, the notes being not unlike those of a Stonechat, with a Lesser Whitethroat flourish added at intervals. As the books record, their scolding note is Cha-cha-tcha!

They were reared from the nest on live ant cocoons, and are apparently larger in size than stuffed specimens I call to mind. They feed and thrive freely on a good mixture of egg, biscuit, cocoons, dried flies, etc., and although they had not previously been offered fruit, they eat sweet pear and banana as readily as Blackcap Warblers.

When at rest, their tails are carried in a manner reminding one of a Violet-eared Waxbill, but, after shifting their positions, this appendage is elevated slightly. In order to see a proper display, one was taken outside into the garden, where, at close quarters, it was possible to witness the natural demeanour of this very charming bird. Brightening up, the little fellow curiously examined everything about him, elevated its head feathers, and then, without warning, shot like a dart to the next perch. With a jerk the tail was raised, the body dipped and another flight taken, then back again and so on for a few moments. The "cock" of its tail seems almost peculiar to the species, not resembling the same movements of a Wren or of a Robin. The only bird I can liken it to in this respect is *Malurus cyaneus*. This is all done without the slightest sign of fear or wildness, being merely a display of natural movements. As far as I can ascertain from a large series of show catalogues extending back many years and also from those who have attended bird shows for a considerable length of time, this bird is one of the few British Warblers that have yet to be exhibited.

Ornithologists usually give the total length of this bird as 5 inches and that of the Lesser Whitethroat as 5.2 inches. As compared with the latter bird side by side, a Dartford Warbler in

bulk appears a "mite," yet a centre tail-feather laid on a foot rule measures exactly 2.5 inches.

A nest I have before me I find to be fully 2 inches in depth and quite that across the inside cup. The gentleman who procured it, and who also reared these identical birds, told their present owner that although he had for many years been in close touch with the species, he had never before removed nest or eggs or exhibited to covetous eyes their whereabouts, and that he had yet to find a nest in furze. All that he had had the good fortune to come across were placed in heather. Other home observers have generally referred to furze in this respect, although I believe on the continent, especially in the south, heather is selected as a site.

These young birds I believe to be all cocks, and they may be described roughly as follows. Head slaty, deepening in colour daily, otherwise above, smoky brown; wings dark brown with paler margins; tail dark greyish brown, the two outer feathers having white outer margins and tips. Underneath they are principally reddish chestnut, which gradually fades to dirty white towards the centre of the lower breast and towards the vent, grey. The eyelids are yellowish and the iris probably wine-red (but so quick are these birds in shifting the position of their heads that this is difficult to determine). Bill horn-brown, yellowish near the gape; feet flesh brown; a few white tips ornament the edges of the feathers on the upper throat.

* * *

[Since writing the above, a letter signed Florence Burn appeared in *Canary and Cage Bird Life*, in which the writer states that she reared two in 1905. Both had short lives; the diet of raw beef and sops given to them in all probability being the means of hastening their ends.—A. S.]

NESTING OF THE SPOTTED-BACKED WEAVER.

Hyphantornis spilonotus.

By R. A. HOLDEN, F.Z.S.

The Spotted-backed Weaver (*Hyphantornis spilonotus*) ranges, according to Shelley, from Lake N'gami into Eastern Cape Colony and Zululand, and eastward to Mozambique; and the following description of it is given in Sharpe's Layard: "General colour of the head, breast, belly, vent and rump, bright gamboge yellow—back, liver brown and yellowish green varigated—sides of head and chin in front of throat, black—wing feathers brown, edged with yellow. Tail greenish brown, bill black, feet flesh colour, length 7", wing 3" 6", tail 2" 7". The eyes are a very bright red. The hen bird lacks the black upon the face and throat, the back is dull greenish brown and the gamboge yellow of the male is replaced by a dull grey, verging into pale lemon yellow at the throat and some way down the breast. According to the authorities the eggs of this species (which usually number three) are of the most diverse colouring, being either white, blue, or white or blue spotted with brown, and are about 0.75 by 0.56.

I secured six specimens of this Weaver from a dealer about December, 1908. All were out of colour, and were turned into a garden aviary 20 feet by 10 feet, with a fairly large unheated shelter. Two of them died towards the end of February and of the remaining four three proved to be cocks. About the middle of April the three cocks came into colour and became exceedingly quarrelsome, so much so in fact that I had to remove two of them, leaving the hen bird and the oldest cock in possession. At this time both birds were very shy and wild when the aviary was entered. To my surprise the cock at the beginning of May commenced to moult rapidly and in a fortnight was quite out of colour, but by the end of June he was again in full colour and began to sing and chase the hen all day long.

Both birds refused any seed but canary seed, though insects of any kind, particularly mealworms and even earthworms, were much appreciated. The nest (according to Ayres) (*Ibis* 1860, p. 212) is usually constructed of the leaves of palm and banana with a small quantity of grass, and Shelley notes that the interior is

often lined with the leaves of the Australian Blue Gum and Black Wattle since the introduction of those trees into Africa.

My birds were supplied daily with coarse grass, hay, and bast, but the grass alone was used and with this the cock bird built several nests, the hen taking no part beyond inspecting and usually destroying them.

About July, however, a nest was commenced hanging from the wire netting of the top of the outside flight. This nest was a very much more finished article than the former ones, being both deeper and stronger. In shape it resembled an inverted snail-shell, its extreme depth being about seven inches, length seven inches, width four inches, with an entrance tube of two inches diameter and about two inches long.

The hen seemed from the first to thoroughly approve of this nest and would sit inside it uttering a peculiar clucking call while the cock hung from the entrance flapping his wings after the fashion of the *Hyphantornis* and singing his harsh song.

The song, which lasts for perhaps four or five seconds, consists of a series of discords ending with a long-drawn-out hiss resembling a file being scraped across a metal bar.

After about a week the hen built a bar of strong grass stalks across the inside of the nest, presumably to prevent the eggs from falling out when she left the nest; but the effect of this was to make her entrance a matter of some difficulty; in fact on later examination the actual space in the interior of the nest seemed very inadequate for the hen bird alone, without taking any family into consideration. The nest was lined exclusively by the hen, the cock bird never entering or adding to it, and the materials used were cocoanut fibre, roots, dead leaves, cow-hair, feathers, and a quantity of the leaves of the common *montbretia* and privet.

On the 7th of August I found a pure white egg on the ground under the nest, unfortunately broken, and on the next day the hen commenced to sit in earnest, only coming off when disturbed or when mealworms were being dispensed.

The cock frequently flew up to the nest, but never entered it, and I do not think he ever fed the hen, though close observation was very difficult. On the morning of the 20th August I

found the complete shell of a newly-hatched egg (again pure white) and another was found the next day. Live ant's eggs were at once supplied, together with soft food, but neither of the birds would touch the latter, and if mealworms were mixed with the soft food they would carefully clean before eating them. On the 23rd I was unfortunately forced to leave home for three weeks, but was lucky enough to secure the services of a very competent neighbour who fed the birds many times daily with fresh ant's eggs. Neither she nor myself ever saw the cock attempt to assist the hen in feeding the young birds.

Unfortunately, about the 2nd September one young bird (of which I am unable to give a description) was found dead under the nest and there was no trace of the other.

The weather in Hertfordshire at that time seems to have been cold and wet, but it was quite possible that the cock bird was the culprit, for he seemed to think that the business of incubation was one in which his wife ought not to indulge, and evidently wished her to spend the day inspecting new nests.

Many of the Weaver-birds show a decided preference, when building, for branches which overhang water, and I imagine that *H. spilonotus* is no exception. My birds have for a bath a shallow earthenware dish, perhaps a foot in diameter, and one of the first nests was built directly over this. The dish was, from motives of curiosity, twice moved and on each occasion weaving was commenced directly above it.

The final nest, in which the young were hatched, was within four feet of the entrance to the aviary and as nearly as possible directly above the water-dish. I give these facts for what they are worth; they seem to me curious enough to deserve mention, though I do not think that the various Weavers in the Western Aviary at the Zoological Gardens ever build over the much larger bath with which they are supplied. The Spotted-backed Weaver is figured as the "Natal Yellow-crowned Weaver," in Swainson's "Birds of West Africa," and at plate 66 of Smith's "Illust. Zool. South Africa," the same species is figured, but from a male which is not in full colour.

I hope if both birds live to breed this species with greater success next year; they are handsome, hardy, and exceedingly interesting, and become fairly tame.

NESTING RESULTS AT WOBURN.

By the DUCHESS OF BEDFORD.

I am again sending you a few notes regarding Cranes and other birds at Woburn, in the hope that they may be of some interest.

A Common Crane, which has for more than a year attached itself to a pair of Sarus Cranes, laid an egg last spring, on which the Sarus Crane sat for the full time.

Tired of sitting on an infertile egg, they finally went off to another pond accompanied by their friend, and the Sarus Crane laid an egg on which she began to sit. Very wet weather followed and the egg was found at the bottom of the pond.

Shortly after, they started a third nest, laid two eggs, and this time their perseverance was rewarded and they hatched out two chicks, which are now well grown.

A second pair of Sarus Cranes hatched out one chick which is also thriving.

A pair of Common Cranes, *both full-winged*, nested and hatched two young. I saw these birds swim across a pond when still in down.

The White-necked Cranes have also two young ones.

The Mantchurian Cranes nested for the first time with us. They laid one egg and the young bird was hatched in July and is doing well.

The Australian Cranes hatched out two chicks which lived only about ten days. They nested again and have now one half-grown young one.

A pair of Coscoroba Swans laid four eggs. Two young were hatched, but I regret to say lived only five and ten days respectively.

A Chinese and Snow Goose have a cross-bred young one.

One pair of Cereopsis Geese successfully reared their young, but they unfortunately nest very early in the year and most of the eggs get frozen.

The Hutchin's Geese nested for the first time and reared their young.

Bewick's, Whooper and Black-necked Swans all nested but did not hatch out.

Spotted-billed Ducks, Chilian Pintail, Mandarin, Carolina, and Fulvous Ducks, Versicolor, Chilian, and Brazilian Teal, all hatched out young.

Our Pekin Robins, which have been at large for a year and a half, bred in the Park.

There was also a hybrid Dominican and Crested Cardinal bred at large in the garden, and a Gaumer Dove.

BREEDING OF THE QUAIL FINCH.

Ortygospiza polyzona.

Cat. Birds Brit. Mus. XIII., p. 269.

Avic. Mag. N.S. IV., p. 170.

Stark's *Birds of South Africa* I., p. 109.

By REGINALD PHILLIPPS.

The rain has spoilt not a few of the nests in the aviary here this summer. The most grievous loss was that of three nestling Waxwings; for just a week all went well, and then came prolonged rains. From the afternoon of August 17 until about noon on the following day the parents seemed to be afraid to uncover the young in order to feed them, and when the rain stopped it was too late—they sat on the edge of the nest trying to coax the young ones to raise their heads, but they were either too far gone or dead. The parents were new importations and tailless; that birds in defective plumage should have built a solid substantial nest, laid eggs, hatched them all, and fed and tended the young with the utmost care was a remarkable occurrence. Two nests of the Violet-eared Waxbill have been ruined. These obstinate creatures *will* build in a bush or tree if there be anything of the kind available; they are now sitting for the third time. Another perverse little monkey in this connection is the Quail Finch; do what you will he gangs his ain gate—and comes to grief accordingly. If there be but a blade of green grass in the aviary, under that bit of greenery he will build his nest—or nowhere. Oh, the number of nests my old male has had destroyed by the rain during these last three summers! Nevertheless, he has never given up; and now, at last, his perseverance has been rewarded, for three fledgelings, strong on the wing and

stout of foot, have left the nest :—surely his pluck is worthy of being immortalised in the pages of the *Avicultural Magazine*.

In order that one point in my story may be understood, it is necessary that I refer back, for a moment, to ancient history.

When my first Quail Finches arrived in December, 1906, three were found to be suffering from something suspiciously like septic enteritis. Both of the males died ; one female, after a long illness, recovered, while the other escaped infection. The latter is the heroine of the series of nests which were built during the summers of 1907 and 1908. Of the effect, or supposed effect, of the illness upon the other female I shall have something to say later on.

During the summer of 1907, I had a succession of nests, all built on the top of a hog's back in the garden aviary. On September 5, the nest looked so weather-beaten that, concluding it had been deserted, I was about to tear it open when there came forth such a bitter cry, and there was such a frantic struggling within as of a wrestle for life, that I held my hand and withdrew. On the 11th, one young bird had left the nest, the only one—the pioneer aviary-bred Quail Finch. On the following morning I found it dead—it had been murdered.

Now that I look back on this little tragedy, from the higher ground of later experiences, I can trace the course of events with sufficient clearness.

Doubtless the rain had much to answer for at first ; but, as the season advanced, the mice increased in number and boldness. I had read of birds being killed by mice, but, never having had any personal experience of such a case, I did not give the matter a thought. The mice stole the eggs ; then the birds added a layer of lining to the nest, and began again. At the last, one nestling was hatched, and was protected by its parents so long as it remained in the nest, for both seem to sleep in the nest at night. That the nestling had had many a scare was evidenced not alone by the terror it exhibited when I touched the nest, but from the circumstance that it must have been partially paralysed from fear. It was in excellent feather, but it was weak on its legs and made no attempt to fly. I found that my fledgelings of this summer, as soon as they left the nest, were strong on their legs,

could fly well, and were wild, springing up from the ground as powerfully as their parents and flying off on the smallest alarm. If the poor bird had had the proper use of its limbs, I doubt if the mouse could have grabbed it, owing to its habit of springing into the air. Should this brief sketch teach a lesson of caution against mice to any of our readers, then this bird will not have lived its unhappy little life in vain. It was stupid of the mice to have killed that fledgeling, for they have had but a poor time of it here since.

Late one afternoon, not long afterwards, I noticed about a dozen little birds hovering and disporting together close to the ground; having seen something of the kind before, and not understanding what it meant, I stalked them with the greatest caution. The centre of attraction proved to be a mouse. A bird would alight on the ground, sometimes three or four together, the mouse would dart at a bird, and the bird would just flit up on to the nearest bough. Bird after bird went down, again and again the mouse charged, now here now there, now after one bird now after another, the bird aimed at just dodging out of its reach. It looked very much like an illustration of the old story of the snake fascinating its would-be victim. There was no fascination here, however, although curiosity may have attracted the birds. It looked very much as if they were having a game; a case of children, not understanding danger, running across a road in front of a motor car—a little game which sometimes has a fatal termination, as with the snake and the bird.

During 1908, the usual number of nests was built—some three or four each summer—but the Regent Birds and others were in the aviary; so what between the birds and the rain the Quail Finches had not a chance.

In March of this year the female died; and I was left with the male and the odd female which had had the serious illness already mentioned; I had had others in the intervening time but only the male had survived. As this female had regained strength, her upper mandible had become red like a male's; and she had put on the plumage of the male in every respect but the black throat, and retained it until last spring. Moreover, she sang as pertinaciously and freely as a true male. She was scouted

by the other Quail Finches—neither males nor females would associate or have aught to do with her; in their eyes she was neither fish, nor flesh, nor fowl, nor good red herring. In June of last year, at pages 228-9 of our magazine, Mrs. Howard Williams referred to a female in her possession which seems to have been much such another bird.

When my black-billed female died, I supposed that my red-billed bird would not be of any use, and endeavoured to obtain another, but did not succeed in doing so until May 27. This brought my total number of adults up to three for the year; but this new female does not come directly into my story.

After the two old birds had found themselves alone in the world, little by little they chummed up; the female ceased to sing, the brightness of her colours abated, and the two went to nest together. Fertile eggs were laid before the new female was received, so there cannot be any question of confusion; and, as far as I can see, she is the mother of the young birds. This species is very faithful, and they would seem to pair for life; and I have not observed any sign of a shuffle here. The case is interesting; but then there are not any reasons for supposing that the ovary had been directly affected.

My notes tell me that, on April 12, the male was very noisy and restless, and “wants proper female and to go to nest.” On May 11 they were transferred to the reserved aviary, the male being desirous of nesting, “but female has lost her jauntiness and looks far from well.” The male commenced to build immediately.

It is not unlikely that, if I had been acquainted with the ways of the breeding Quail Finch, at any rate with the eccentricities of this erratic female, I should have had fully-bred fledgelings in June instead of September. I know now, what I did not suspect then, that this female—perhaps others too—lays one egg and immediately commences to sit; *she does not lay her second egg until after the lapse of several days*; and then there comes another pause before the third appears. Moreover, the old black-billed female used to sit well, and would not leave the nest unless I touched it. The superior creature who has succeeded her, on the contrary, is too grand to admit that she has anything to do with either the nest, the eggs or the male. Her curious behaviour

and fickleness combined misled me, and caused me to commit a big blunder.

The nest was built on the side of a steep slope. For a while all went well, and then the male became uneasy. I tried to find out what was wrong; the female was never near the nest that I could detect, but seemed to pass the time, as she still does, showing herself off on a high perch; and so I concluded that it had been deserted and proceeded to examine it. I found two eggs in the nest, one dark, the other newly laid, while a third lay on the grass outside. The male Quail Finch is a vain little fellow, and is never so happy as when carrying feathers, and the larger the feather the greater his joy and pride; he had been carrying feather after feather into the nest until the inside was on or above the level of the aperture and an egg had rolled out; this is what had disturbed his equanimity. I broke the dark egg, and was annoyed to find that it contained a live chick nearly ready to leave the shell--the nest had not been deserted after all; the egg which had rolled some inches down the slope had been incubated for a few days. I deepened the shallow depression without disturbing the nest, but the birds would not return to it.

On the next nest the female sat well (but always flying off on any one entering the aviary), but she was flooded out by the rain; and a third, which I found recently with three eggs in it, had probably been deserted from the same cause.

The fourth nest was a reconstruction of No. 2. I had become so accustomed to failures that I thought little of the Quail Finches, and was so much occupied with other matters that I was unaware of its existence until the sprightly behaviour of the male during the interval of lovely weather between the rains of August brought him under my notice. The destruction of all the other notable nests by the returning rains made me settle my attention for a time on his goings on, for, saving the Violet-eared Waxbills, he was my last hope for the year of anything new.

When that delightful little spell of fair weather occurred in August, was there ever a manikin so happy and proud as the male Quail Finch! Here at last was the sun; his fourth nest for this year was progressing favourably and success was in view. How he held himself up and strutted about! Were ever his

waistcoat and tie so smart and so bright--and how he did sing! Alas, the return of the rains soon took the starch out of his collar; and limp and dejected he was once more as he went about his business.

The nest was on a piece of flat ground, quite in the open, and might at any time be flooded. The old birds were very secretive; they never approached it from the front but always sneaked round from the back; when I entered the aviary, the female would fly on to a high perch, while the male watched my every movement from an opposing bank. Nevertheless I decided at all risks to place a shelter over it, which I did in the form of a table, with long straddling legs pushed into the ground as far away as possible, the top having a list in order to shoot the water off into the safest direction: happily the birds did not desert their young ones, notwithstanding their dislike to having anything above them. Instinctively they seem to dread anything that may obstruct and interfere with their upward spring.

On what date the young ones commenced to leave the nest I do not know. The nest had been full; and I had noticed with concern, for I did not suspect the cause, that it was not so full, that it contained only one after all. This one came out early on August 31st; on that day the nest was empty. The youngster was with her father; although some yards away, she resented my inspection; and I was surprised to find not only that she was strong on her legs but that she could fly well. On the following morning, I was well pleased to find her in the company of a second fledgeling, which was evidently some days her senior. On both of these occasions I had noticed not only the presence of the father but also of another red-billed bird which, in my hurried glance, I had supposed to be the mother. On September 2nd I had an opportunity of counting heads, and found that there were not less than six Quail Finches in the aviary, or an increase of three. The following morning was bright and warm, and the youngsters so strong and alert that I felt I might safely make a fuller examination (with the binocular). I found that the red-billed bird was a fledgeling; he stood up side by side with his father, and the two bills were equally red and brilliant. This is rather startling. If he had come out of No. 2 nest, which is not

absolutely impossible, would the father have kept company with him, and have allowed him to associate with the others? The five (the odd female was never anywhere near) were on the most affectionate terms—and this species is intolerant of intruders. Moreover, although there might have been more, I cannot think that there could have been less than three in the last nest. On one occasion when I inserted my forefinger, the nest had appeared to be so full I had supposed that the mother must have been inside—a most improbable supposition, and she certainly did not fly off as I withdrew. Of course there may be another nestling about somewhere, alive or dead, which I have not noticed.

I experienced difficulty in noting the plumage of the young birds. The foliage in the aviary is thick, and there is still long grass, etc., about; and I had to exercise care lest I disturbed other nests. They lie concealed under a tussock; and, when at length they are located, out they trot in different directions, fidget restlessly about for a brief span—and then in a moment there are five little creatures bobbing about in every direction, but mostly behind the trees—and one is nonplussed. The following notes, taken on August 31 and three following days, are the best that I have to offer.

No. 1, a fine male, with bright crimson bill; the white face-lines boldly marked; but I cannot satisfy myself that there is any black about face or throat unless it be a shade just below and edging the white chin. The bars more conspicuous and diffused than in the father (the two stood up together side by side, and directly facing me), especially about the upper breast, and encroaching on the throat; sides liberally washed with pale chestnut; under parts light brown without a trace of chestnut that I could detect. Legs not noted.

No. 2, doubtless a male, very like the last but generally more brownish; bill slaty horn; the legs and feet of this and the following bird light flesh-pink.

No. 3, doubtless a female, differing from the others in general colour, a gray bird, with all the markings much less pronounced; a faint wash of chestnut on the sides; under parts pale sandy; bill black.

The rains recommenced on September 4, so I have not

since disturbed them. They are very active and alert, flying readily and easily; they are always attended by the father and usually by the mother; the father is most attentive, especially to his little daughter, whom he accompanies like a shadow, even on the wing.

While inspecting the fledgelings, on two occasions I obtained a good view of the mother. She seemed to be washed all over with pale isabelline. The bill, when viewed from the side, was bright crimson like the male's, but with the culmen dark brown or black—quite different from that of the ordinary female, which has only the lower mandible red and that not bright.

With me the nests, about three a summer, have been built of grass or hay and lined with feathers, the male doing all the carrying. They have been well-built, neat, compact, and strong, and not in any sense "rough" (Stark). As a rule when a bird—the Violet-eared Waxbill for instance—uses growing grass for his nest, he catches hold of a blade and tugs away until he tears it up or breaks it off; it is done by brute force. One day this summer, I watched the male Quail Finch for some minutes through a binocular. The nest (No. 2) was about a foot off the path (along which I rarely trespass during the summer), quite out of sight amidst some thick wheat-grass, and doubtless the female was inside. The bird went to the edge of the path on the opposite side, where also there was a thick growth of grass—he did not touch any on the side where the nest was situated—*cut* off a length of some six inches and carried it to the nest; again and again he returned, cutting off each blade with his bill as easily and quickly as with a pair of scissors. I have not myself been witness to anything like it in all my life that I can remember.

The nest has invariably been placed on the ground, in thick growing grass, wheat, or oats, on rising or sloping ground from preference. I think this year's nests 2 and 4 were placed on the particular site occupied because it was open and especially favoured by the sun. Unlike those of our Willow Wrens (speaking broadly of our three common *Phylloscopi*), not only are the nests built in the open but anything in the way of a bush or skirt thereof is avoided; they are birds of the open and detest a

thicket. It is a good large compact ball, very roomy inside, with the aperture well down and almost on a level with the ground outside, and well concealed if the grass be long enough to hide it. The eggs are white; and the usual number to the clutch is probably four or five (N.S. IV., 213); I *think*, with me, three has been a more usual number; but the Quail Finch is a queer character; and two addled eggs which I found placed together in a spot some 6ft. from the last nest may have been carried thither when found to be of no use. Incubation is carried on almost entirely by the female, but the male is constantly on guard close by, and probably slips in when the female comes off to feed. Sir William Ingram's experiences of last March (p. 174) were abnormal, I should suppose.

The adults of this species are certainly fond of tiny insect life; with what exactly they fed their young I do not know. On not a few occasions I saw the father battling manfully with a large mealworm, but this is the utmost that I could detect; and absolutely nothing could be observed after the young had left the nest, for they were all too retired and too much on the alert.

Excepting when disturbed, they were very quiet and secretive. Now and then I heard a lot of low-toned clacking whispers, as if they were having a family confabulation, but all was carried on in voices too subdued to attract attention. On being approached and aroused, the notes of both young and old were alike as far as I could observe.

The Quail Finch will take freely to bare perches, even the highest, which indeed it favours as offering the more extensive view, an important point with this tiny species. Only on very rare occasions will it perch in a tree, and then a leafless bough or twig will be selected.

It gets over the ground by means of walking, tiny runs, and little jumps. Owing to its legs being so short, it keeps to bare ground as much as possible in every-day life, and is very fond of basking in the sun.

The flight is undulating, and, in my reserved aviary, jerky, a sort of dancing in the air; but, when the two aviaries are thrown into one and there is plenty of space, the undulating flight is very fairly rapid. While on the wing, they are rarely

silent, but utter a characteristic monosyllabic note by means of which the members of a family are enabled to keep in touch with one another.

The name "Quail Finch" is convenient but misleading, for there is nothing of the Quail about the species: "Ground-Finch" would be better. Stark calls it the "Bar-breasted Weaver Finch"; why the word "Weaver" should have been brought in does not appear, while either "Bar-breasted Finch" or "Bar-breasted Ground-Finch" would have been suitable. The only other species in the genus, *Ortygospiza atricollis*, since the name Quail Finch has become so firmly established in this country for *O. polyzona*, might be known as the Black-necked or Black-chinned Quail Finch when it arrives—and it may arrive any day. Unfortunately, sometimes when our species is badly kept, it loses its white chin and becomes melanistic; when given plenty of liberty, however, it retains its proper colours.

No account of the Quail Finch would be complete without some reference to the ravishing song of the male.

When I was a boy, there was a certain cottager's garden which had in it a large cherry tree; and year by year, as the season of cherries came round, in order to frighten away the birds, the old man used to fix up in the tree a clapper arrangement which was worked by a diminutive windmill. As the sails revolved, two heavy loosely-hung pieces of iron were banged against an empty gunpowder canister—a common object in old muzzle-loading days—with results which were more audible than musical; and I do not know of anything that reminds me so much of this ingenious contrivance of the old cottager as the staccato song of the Quail Finch, which goes somewhat as follows:—*Click clack cloik clike cluck cleck click cloik cluck click cleck clack cluck clike cloik*, etc., etc. Now if this score be read slowly, it may appear a little tedious; it should be galloped through, as when a gust whirls round the arms of the windmill, and great care must be exercised lest a slur or false note be uttered; and, as the wind is uncertain and unequal, so the song bursts forth at one time with startling suddenness, at another just for a little spell, at another for a prolonged period, according to the spirit of the moment. I am conscious that no combination of words which

may be found in any dictionary yet published can adequately describe this unrivalled composition—but *it has only to be heard to be appreciated!*

September 13th.—The plumage of the young birds has developed rapidly, so much so that, yesterday, I was doubtful of the identity of three out of five Quail Finches—all I could see—the father and his little daughter alone being recognisable. Of the five, four had dark bills; and all of these four had the underparts more or less washed with isabelline; and two had black on the throat. The weather is so bad, and the aviary is overgrown that satisfactory observations are impossible.

October 22nd.—Notwithstanding the rains, all of the six are alive and well.

MORALS AND BIRDS.

By G. A. MOMBER.

Lately, on finding in our September number an article entitled “Morality in Birds,” my hopes rose high. At last I was to be told what I had long waited to hear. I was to be admitted to a new thought, to be answered questions I had not skill to put. But with the opening sentence the page grew dark. Instead of being shown the sky-laws at work in nature, instead of finding the moral sentiment discerned and expounded in the Kingdom of Birds, I was flatly informed that morality in them was not. In proof thereof followed a catalogue of the errors of judgment perpetrated by captives in aviaries. Nothing was affirmed, nothing brought, and I felt robbed of something that was mine by such negation of character to my friends. Nor was conceding mention made even of the manifest good traits in birds, the palpable virtues we all can see: their altruism and devotion and diligence in the cause of others; their fortitude under stress and courage in making the best of bad times; their genial response to prosperity and fair weather; their self-reliance in solitude and adaptability in society. To chronicle a list of misdeeds in aviaries,—murders and misalliances,—and then to impute all the ices to the feathered tribes, seemed too unjust to pass unchallenged, though birds may be trusted in the end to ply an

abler quill in their own defence, and with less danger of entanglement in so perilous a net as the philosophy of ethics.

Of course, fallacy underlies the title. Morality, the doctrine and practice of moral duties, the standard of right and wrong, how can it be applied to the wild creatures of nature? Especially how can it be looked for when these are brought by man into the unnatural conditions of captivity? In vain we seek it in other men, until by knowledge they have attained will, and then it seems to be more an aspiration than a fulfilment.

Can we not endorse in wild creatures the original impulse and the skill that comes without experience, except we demand also to see our human aims accomplished? What is evil but the continuation in man of the animal's necessary and implanted instinct? Evil begins with consciousness, and the violation of the moral sentiment. In wild animals there is no evil; though in the higher domestic animals there is already a conscience, inculcated by man, and some sense of right and wrong. But if wild animals are incapable of wrong-doing, through having no scale or norm, we can yet find traces of virtue in them when they by will set aside their own advantage for the good of others. We can still discern them on the side of the angels.

Domesticated birds are commonly considered degraded, but it would not be safe to deny them all virtue. Guinea-fowls have lost their parental qualities, but they adhere to monogamy. The gander may have so far forgotten himself that he takes more than one goose to spouse, but he retains a fatherly care for his offspring. The Homing Pigeon is an emblem of domestic faithfulness, the Gamecock a symbol of courage. Swans keep intact every sterling good quality.

In face of what our scientific friends tell us, that the Class Aves is a side growth in the general development, and out of the race for progress, it is curious to compare it with the higher Class Mammals, in point of mentality. Maternal instinct, that fundamental provision of nature's, without which no species could survive, makes heroines alike among vertebrates and insects. But of all wild creatures, it is birds that chiefly show the domestic virtues, a long stride in the direction of morality.

With the possible exception of a few of the higher apes,

about which little is known, the males of mammals are progenitors, not mates or parents. Whereas it is certain that many of the larger birds, Swans, Cranes, Eagles, Ravens, Parrots, pair for life and live in pairs; that the smaller species are monogamous, pairing probably afresh for each nesting season, and that in almost all birds, except a few polygamous groups, the male takes a part in nest building, in incubation and in tending, and afterwards guiding the young.

Leaving aside the dog, whose centuries of close fellowship with man place him quite apart, there are in mammals no mental qualities which cannot be found at least equalled in birds: when wild, quickness to detect danger, and that in spite of having little or no sense of smell; acuteness and memory to avoid it; readiness to seize opportunity. When brought under the influence of man; tractability, faithfulness and affection. There are many anecdotes to bear out these points. Here it must suffice to instance the trained Hawk, the fishing Cormorant, Cranes that have been taught to round up and bring home the cows; the Crow that follows his master on his walks or rides, flying from tree to tree; the singular devotion of Parrots to their owner; the intelligent recognition and friendliness that all birds, even the smallest, wild and captive, show to the person who is good to them.

It is mostly impossible to tame wild mammals taken adult; this applies far less to birds; in fact the haggard or wild-caught Hawks make the best when trained.

Birds are nature's darlings, loaded with advantages. They stand for beauty, but their elegance and vivacity form a part only of their attractiveness. It is theirs to celebrate motion in its most perfect forms. Such grace and power lead them naturally to sociable, pleasurable exercises. Who has not admired the wheeling flights of flocks of Starlings or Dunlins; hundreds of birds carried by one impulse into sweeping curves and returns, wave-like rise and fall; each pair of wings exactly adjusted to its place in the dance, and all at the same instant tilting to new angles of light, now the dusky backs, now the clearer flanks.

Birds are artists. Taste they show, and plastic skill and a sense of symmetry, in the weaving and binding, stitching and

moulding, plastering and tunnelling of their nests—marvellous examples of workmanship, often most pleasing, always harmonious with their surroundings. But above this constructiveness, they exult in a higher gift, one they share exclusively with man, to whom conceivably they taught it—the gift of cheerful song, of melodious expression. The drowsy man of sense may call it a love ditty, the musical formalist may try his sense of pitch to score the notes, but try in vain to report the chant, for nature's wild melodies will not be described by our laws of harmony. Yet, rapture or challenge, war-lay or recital, there is in bird-song the archetype of poet and minstrel. In this universal utterance vibrates inspiration, a passion and an enthusiasm you cannot go behind.

There is somewhat of inspiration, too, in the mysterious migration frenzy that drives them with unerring periodicity to change their hemisphere, to change their leisurely day-time habits for urgent midnight wing-marches, their earthly haunts for a track across the starlit skies. Would we see the impossible accomplished? It is done, when the slow-winged Rails leave the thick herbage in which they skulked all summer and become tireless, dauntless voyagers across the Mediterranean; when tiny Goldcrests and Tits, that hesitate to flit from one fir tree to the next, take the North Sea at a flight.

Lux mea dux might be their cry, as, leaving earth and clouds beneath them, they wing their way without guide or landmark to the unknown.

Perhaps, instead of wondering at nature's lavish bounty to birds, we should see the inevitableness that their physical and mental traits should complement each other. Perhaps wise Spenser was right:

“For of the soul, the body form doth take,
For soul is form, and doth the body make.”

OUR ILLUSTRATIONS.

SIR,—I am very glad to see Mr. Astley's letter in the October number of the *Avicultural Magazine*. I fancy I wrote some years ago on the same subject. It is a waste of space and money introducing figures of common birds in our Magazine. What we want is illustrations of something we have not seen before or are not very likely to see. The Levillant's Barbet is a good example in this month's part.

JAMES COOPER.

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Edited by FRANK FINN.



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WING-DISPLAY OF KAGU.

W. S. Berridge.

Avicultural Magazine,

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DECEMBER, 1909.

A LITTLE-KNOWN POSE OF THE KAGU.

Rhinochetus jubatus.

By ARTHUR DENMAN, M.A.

Of all the birds in the Western Aviary at the Zoo, probably that which calls forth the warmest expressions of admiration is the Kagu of New Caledonia. In repose a forlorn object, resembling a cut-down Heron or a diminutive Crane, on the proper calls and signals being held out to it by its intimate friends, it will almost surely respond by elevating its mane-like crest, swelling itself out in the most portentously dignified manner, and following any bit of white material shown to it. Thus it can be induced to strut, with wings and breast protruded, and uttering a curious, subdued, crooning noise like the commencement of a hen's cackle, round and round, and through between, the visitor's legs.

In its strutting attitude it is admirably portrayed in *Cage Birds*, of 18th January, 1908. The attitude in which it is here depicted is a much less common one, and one which I have reason to believe it was not generally known to assume.

The Kagu first exhibited its tendency to show off in this way to me some eighteen months ago, when I was poking meal-worms through the wires of its cage. It stared very hard at my finger, and then, very gradually, opened its wings, bending them over and forwards, as shown here. The barring of the primaries, consisting of alternating, peculiarly delicate, mottled grey, (slightly tinged with rufous) and black, is remarkable; for not a sign of any colour other than a pale slaty grey is visible at other times.

The bird constantly assumed this, to me, new pose for several weeks; and, at the Superintendent's request, I met Mr. Berridge with a view to obtaining a photograph. *Then*, of course, it obstinately refused to pose, and it was not until late in this summer that the picture here given was obtained.

What either of the displays spoken of indicate I do not profess to know. One would imagine that the strut was a love posture but for the fact that, not infrequently, the bird makes a dash at the boot-buttons or the trousers of the visitor in anything but a loving way. The display shown here may be, and probably is, a fighting attitude; though the bird's attention seems always to be fixed far more on the mealworm than on the finger, and the moment that the latter is withdrawn and a shirt-cuff shown, it will reassume the strutting walk and will follow the whole length of the cage without the least sign of animosity.

The Kagu is a bird of moods. There are days together during which it cannot be induced to do anything. It generally transpires that this condition follows on its having been frightened by some small child; but even when thus "off colour," its beautiful ruby eyes never fail to observe any dropped mealworm.

The Assistant Superintendent told me that this bird is, unfortunately, extremely rare—in fact, in a fair way to becoming extinct—and he explained this by saying that the French, to whom New Caledonia belongs, like an easy shot. Certainly, if the Kagu in its natural surroundings is in the habit of describing figures of eight round the legs of the chasseurs, it must afford an ideal quarry for "*le sportman*"!

WILD BIRDS ABOUT HODDAM CASTLE.

By H. GOODCHILD.

A kindly fate, to which I have been indebted for more than one pleasant outing, allowed my making a postponed visit to the North, at a time of the year when I most like to be out of London, for in the latter half of July, 1909, I left St. Pancras Station, bound for Hoddam Castle, in Dumfriesshire, on a visit to our esteemed member, Mr. E. J. Brook.

There is a double advantage in a northward migration at

that season, for if the weather is fine, it is less hot and oppressive in Scotland than in London, and if one is engaged during the day, as I was, there are the long summer evenings and the tardy twilight of the North, in which to make observations of one's feathered neighbours. My arrangements, to my regret, did not permit of my breaking my journey to visit the Lake District, and I looked wistfully at the moorlands of Westmoreland as the train passed amongst them, and consoled myself with the thought that I was going to a district that was new to me, and which might—as it did—yield me the sight of birds not commonly met with in the country I was afterwards to visit. All I saw to note on my journey were Peewits in the North of England and Gulls as we skirted the Solway, while on the drive from the town of Annan to Hoddam, the Yellow Bunting was heard singing from his favourite twigs in the hawthorn hedges, and the Partridge calling close to the Castle.

The first morning there (July 22nd), I found the Greenfinch still singing in the Castle gardens, and heard him again in the afternoon, but Thrushes and Blackbirds had already stopped, it seemed. Mr. Brook most kindly arranged that in the evening I should have some fishing in the River Annan, which flows through the grounds, near the Castle, and under the care of a stalwart Scot, I waded in, fully equipped for even a salmon, should an unsophisticated one take my fly, but I saw more of birds than of the sea trout that were my hope and quarry. I caught a tiny fish that I should have been ashamed to kill, had a rise from another, and like nearly all the other fishermen on the river just then, got nothing worth taking. Gulls flew over, and as I waded, a Dipper passed me only a dozen yards or so away, which is much nearer than they come to one in the Westmorland Gills. The fisherman who accompanied me having expressed his opinion that the wind was in the wrong "airt" for fishing, or else that the sea trout had gone further up stream, I relinquished the rod into his experienced hand, and contented myself with ornithology. An adult Lesser Black-backed Gull went over about half past eight, flying up stream, and a flock of twenty-three Black-headed Gulls—their heads almost white—passed up also. Other Gulls were seen, but at too great a distance to be identified.

On the morrow, an alternately bright and cloudy sky brought out the Yellow Bunting, which I found singing near the aviaries, and the Greenfinch also, close by, in full song. The lawns were frequented by the male Bunting, but I never saw his mate. The Grey Wagtail had bred in the courtyard of the Castle, I was told, and I noticed one running over the stones in an ornamental basin in the gardens. In the evening, for the second time, I went fishing, and again had a tug from a fish in mid-stream that I should like to have caught, but as before, only caught a little one. This time the Grey Wagtail was in evidence on the pebbly sides of the river bed; and at nine o'clock, I saw the Sandpiper, which Mr. Brook told me breeds in a wood lower down, flit over a pool close to me. Later on at 9.40 this bird's distinctive piping was heard as it flitted over the water.

On July 24th, as I went out to the aviaries, I heard mouse-like sounds, thin and unmusical, kept up by several voices, coming from some young fir trees that flanked one of the lawns, and these I found to my delight, came from those little gems of British birds, the Golden-crested Wrens, a party of which, three or four young, were being fed by one of the parents. These birds, which were probably hatched in the immediate vicinity of the aviaries, were seen again and often heard, during my visit. A pair of Willow Wrens also, were seen hunting the fir trees, and a party of four Thrushes hunted over the lawns, while again, the Greenfinch and the Yellow Bunting were heard in song. In the evening, my friend the Dipper showed itself, alighting on a stone opposite to me on the river, from which it seemed loth to move; the Sandpipers were seen and later on, in the twilight, repeatedly heard from the river. The musical piping of Curlews was heard, but the birds could not be seen anywhere, and at midnight, Owls were serenading us close to the Castle.

The next day, Sunday, was wet, but not too wet for me to go out, and I added the Spotted Fly-catcher to my list, and saw a bird I thought was a Kestrel, but it only flew straight over, and did not hover. Many Greenfinches were heard and many Chaffinches seen and on the outskirts of the park, the Woodpigeon was found in plenty. One of these last was observed alternately flapping and sailing so that it looked like a Hawk and I thought

it was one until I looked at it with the binocular. In the evening I walked towards Lockerbie, and the Corncrake, Curlew, Partridge, Yellow Bunting, and Woodpigeon, were all heard or seen, at eight o'clock. Rain was falling quietly at the time and two Corncrakes were heard at once near together, the call of one being slower and lower pitched than the other. I went to the field (of seed grass I think) whence I heard them, and then it seemed the sound came from three different parts of it at once, and it came also from adjoining fields up to 8.40, but when I mentioned the fact to Mr. Brook the next day, he told me that the sound was believed to be ventriloquous, so that after all, there might only have been the two birds whose voices differed.

On the Monday, I found the Yellow Bunting still singing, but did not hear the Greenfinch. I again heard the Goldcrests and saw one of them. The River Annan was in flood and I saw the Dipper and the Sandpipers go past, and the Black-headed Gulls flew overhead. There is a tract of moorland between the Castle and the town of Annan, and at night as I passed it about a quarter past nine, I heard what I took to be a Snipe drumming, and making the "Jik-Jak" sound, but it was distant and indistinct, and I did not feel sure of it.

The next day, at one o'clock, just as I was passing the aviary where the Parrakeets are kept, I had a splendid view of an apparently male Sparrow-hawk sailing over it, so close that I thought the bird was going to alight on the top of the wires. This was the first time in my life I had had a good view of a Sparrow-hawk in a state of nature, and not often have I seen it even in captivity. Cole Tits were heard, and one was seen in the afternoon about three: they were calling to each other as they hunted over the young fir trees. The Yellow Bunting still sang, and I heard what I took to be the song of the Willow Wren, but as I did not see the bird, and the sound was not near, I could not be sure. For the third time, the Goldcrests were seen, and several were heard, as also was the Blue Tit, and I had a good view at close quarters of a Wood Wren. The Curlew was heard, but still I could not get a sight of it.

Being so near the place with the supposed unpronounceable name—Ecclefechan, the birthplace of Thomas Carlyle—I felt I

ought to pay it a visit, and about 9 p.m. set off. As I passed through a grove of trees which overhung the road, I heard the mewling cat-like noise of an Owl, so cat-like indeed, that it had seemingly deceived a kitten, which wandered out from a neighbouring house on to the road, mewling in response. I saw the Owl in one of the trees, though not well, but when it changed its perch and flew into a tree with less dense foliage, I got a good view of it and then saw the row of half light scapular feathers characteristic of the Brown or Wood Owl.

The heavy rains of the previous two days had stopped, and by 9.20 the wind had gone down and the clouds were high and there was a red sunset. Peewits were heard crying, and soon after, the grating cry of a Heron was heard as the bird flew towards the river, but the bird itself could not be seen.

On the Wednesday, the usual birds were seen or heard, and in the evening, as I stood watching along with the aviary attendant, from the stone bridge over the Annan by the entrance to the Castle grounds, a fine Black-backed Gull, which at the first glance I thought was a Heron, flew into view and down down to the low end of the pool beneath us, and poised itself as it seemed, over the water with its white head looking down. We saw it plunge once, but even with my powerful binocular I could not see if it had caught anything. From the bridge we could discern, in a field some distance off, about a hundred Gulls, probably the Black-headed, one of which species flew over us as we watched. A small bird which might have been a female Redstart chatted from a wire fence, but was too restive for me to identify it.

On the Thursday my only notes record that on the moor lying between Hoddam Castle and the town of Annan, I heard the drumming of the Common Snipe and also the "Jik-Jak" sound they make when on the wing, and that both sounds were heard at once at 9 p.m., also that the Peewit was heard calling.

In the evening of July 30th, for the first time this visit, I actually saw the Curlew, a string of seven or eight nearly in a line, passing us flying towards the Solway at 7. I had gone up Repentance Hill, as it is named, which stands by itself and overlooks the Castle and the River Annan, as the evening was beauti-

fully clear, and it looked as if, with the clouds that were about, there was going to be a fine sunset. From the top of this hill, we could see not only the Solway, but also the Lake District Mountains and the far-away Pennines, but both were topped with mist and somewhat indistinct.

On the Saturday, a bird which looked like a Sparrow-hawk flew over me, while I was working outside the aviaries, but it disappeared behind a tree before I could get the glass on to it. Cole Tits were heard singing and the Willow Wren also.

The early part of Sunday, August 1st, was dull, but looked like coming out a fine day, a promise which was fulfilled, and I again went towards the only piece of primæval moorland that I knew of in the district, and on the way heard the Wren singing a very brief song, in a very half-hearted way, and a Robin giving alarm without any apparent reason for it. A batch of Gulls was seen circling round in a peculiar way, but I could not identify them. A Black-headed Gull, with his head half white, went over and I saw his wings were interspersed with the drab feathers. Then a Curlew came over from the moorland, flying east, and settled in a pasture among some Rooks, which I noticed moved away a few feet to make room for it. Three or four Missel Thrushes were seen in the same pasture and a Greenfinch in the hedge was heard giving his characteristic song, quite loud and full. A Woodpigeon passed and a pair of adult Black-backed Gulls went over, flying towards the Nith. I went on to the moor itself, but saw and heard nothing of Snipe or other birds such as one would expect to see there, and only as I retraced my steps I saw a pair of Stock Doves go flying towards the Solway, passing near enough to me to show the absence of white on the rump and the wings. In the evening, on the road to Lockerbie at 7.35, I noticed a Wren chatting nervously from the upper part of a young fir, and clinging on to the upright stem and with the glasses I saw it had food in its beak; immediately after, I heard the song of the male close by, and when he caught sight of me, he too, chatted his alarm note, while the female simply crossed the road in front of me and disappeared into the quickset hedge.

My last recorded item was of another pair of Black-backed Gulls which, at 7.45, I saw winging their way towards the Solway Firth.

Despite the fact that primæval moorland was only represented by a moderate sized patch, and that of other uncultivated ground there was none to speak of in the vicinity of Hoddam Castle, I saw the Sparrow-Hawk, the Goldcrests, Stock Doves, Sandpipers and Gulls, all birds which I only saw in this district; for although they *do* occur in the part I know best, it was not my good fortune to meet with them there this year.

“THE TURNING OF THE TURNSTONE.”

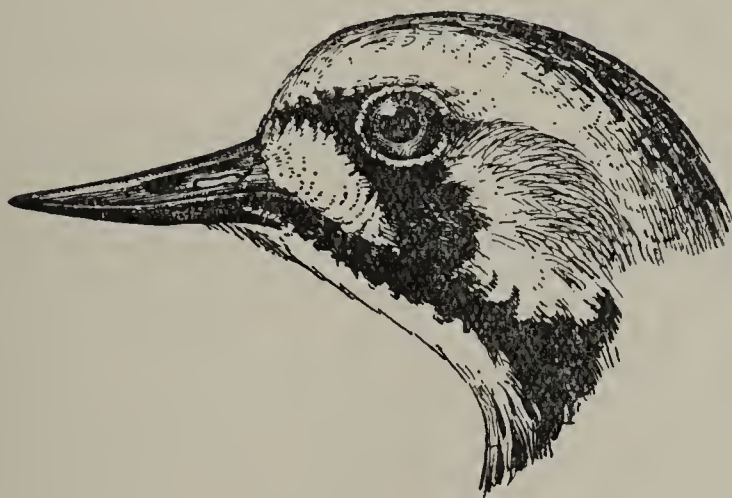
By C. BARNBY SMITH.

For some years past I have been anxious to get Turnstones (*Streptilas interpres*), but, although I wearied dealers with repeated orders, yet I was never able to get the birds until a few months ago, when a friend kindly presented me with a pair.

The Turnstone does not seem to be as commonly kept in captivity as many other little Waders, but few birds are more interesting. It is quite small—only nine inches long—that is rather smaller than a Knot, and its chestnut and black and white plumage render it far more ornamental. It is of a cheerful and friendly disposition; indeed, when my birds arrived they walked out of the basket and began to search for food, as though they had been in their new quarters all their lives. Nor do the birds seem difficult to suit in the way of food, thriving well on chopped raw meat, poultry food, chopped shrimps, crissel and live maggots. In one thing only was I disappointed with my birds at first, namely, they would not justify their common name and seemed quite indisposed to turn any little stones that happened to be in their run. I guessed that it was merely a case of dormant instinct, and that the birds had had a good deal of artificial food provided without any necessity for search. I accordingly put a dozen or so of shells in the run—varying in size from mussel shells to very large oyster shells—and for a week or so the birds' food was usually placed under these shells, a few live maggots being put under one of the largest shells. The result was at once encouraging. Almost after the first day the Turnstones fully realised the situation and, as soon as I had left the run, they would go to the shells, put their bills under

them, and jerk the shells over with a sudden, almost imperceptible movement. Sometimes one bird would follow a shell and jerk it three or four times over with great rapidity.

It was interesting to note a pair of Avocets, an Indian Plover, and a Ringed Plover, all waiting more or less helpless until the Turnstones relieved the situation by getting rid of the obnoxious shells that hid the choicest bits of food. I am bound to say, as far as the Indian Plover was concerned, he did not seem grateful, he being somewhat short in temper—perhaps owing to



HEAD OF TURNSTONE,
IN SUMMER PLUMAGE.

From Professor C. J. Patten's

"Aquatic Birds of Great Britain & Ireland."

long sojourn in the East—and the little Turnstones often had to flee hastily to avoid his wrath, as soon as they had turned a shell or two and brought some tempting maggots into view.

The largest shells would often in the morning be several yards distant from the place where they were placed the previous evening, and were usually left with the convex side downwards. I have never seen both Turnstones working at the same shell together in unison, as they are said to do.

Professor Patten mentions an instance of some Turnstones being in an enclosure with some newly-hatched quail chicks, which the Turnstones kept jerking over and over in their search for food until the poor little chicks all succumbed to the rough treatment.

My birds have never performed a feat of this kind, but I recently determined on a few further mild experiments with

them, and so gave them some thin zinc plates (each $4\frac{1}{2}$ inches square) laid flat on the food, which was pressed down. These plates I found were seldom turned over, the size being too great, but the birds might be seen with their bills under the edge of a plate diligently levering it little by little out of the way.

I next cut the zinc plates about three inches square, and fastened one to a quarter-pound flat scale weight and a similar plate to a half-pound weight. The quarter-pound weight was readily turned over and removed some distance. The half-pound weight was occasionally turned over when maggots were placed underneath, but it was quite plain that this weight in this form was not easy for the little birds as, whilst this heavy weight was only turned once or twice over, the oyster shells would on the same day be made to travel quite long distances.

I next got a one-pound weight (a scale weight with ring on the top) standing one-and-a-half inches square on the ground, and placed a few maggots underneath. This weight was repeatedly knocked over on one side and the maggots eaten. A similar two-pound weight, standing two inches square, was apparently too heavy to be knocked over, but the ground at the side was undermined and a good many maggots extracted by this means. The one-pound weight was so readily knocked over that I am inclined to think that, under pressure of hunger, a Turnstone would upset a similar scale weight of at least $1\frac{1}{2}$ lbs.

No doubt the short legs of the Turnstones are very suitable for their peculiar operations in enabling them to get good leverage.

The contrast between these little birds at work, and the long-legged Avocets standing by and either helplessly "scything" the sand, or giving encouraging cries of "squick-squick" to the Turnstones, is very striking.

I find my Turnstones seldom call much during the daytime, but, like Knots, they seem to grow excited about sunset and their peculiar sharp cry may be then repeatedly heard.

ON THE ECLIPSE PLUMAGE OF THE FEMALE NEW ZEALAND SHELDRAKE.

By Major H. JONES.

I do not think it has been generally noticed that the female of the "Paradise Duck of New Zealand" (*Casarca variegata*) after the breeding season—from the beginning of May to the end of July—assumes what may be called an eclipse plumage.

Soon after the breeding season she begins to acquire a plumage somewhat like the male on the back, mantle, flanks and belly; the latter has a few chestnut feathers here and there, but the back, mantle and scapulars are entirely black, vermiculated with fine lines of white exactly as in the male; the flanks and belly are the same, with the exception of the few chestnut feathers above mentioned; the breast, however, remains chestnut, with some of the feathers slightly vermiculated with black and white at the tips. The rest of the plumage remains throughout as usual and does not alter in any way. The change back to ordinary plumage begins by the feathers of the back becoming gradually chestnut from the base, leaving the vermiculations on the tip and some way down the sides of the feathers; most feathers gradually become quite chestnut, but some retain the vermiculated tips all the year.

The change does not appear to be effected by a moult, but by actual change in the colour of the feather. The breast and belly become quite chestnut, but in some skins I have seen the vermiculations on the tip and sides of the feather, which seem to remain to a certain extent. I have noticed this change in the birds in the Zoological Gardens for several years past, but this year I not only watched the change every week, but I have made drawings of the bird in both states of plumage.

Now, I do not know whether this is the normal state of things, or can it be possible that the bird now in the Gardens is a barren one. It cannot be that it is a female assuming male plumage as in the Pheasants, as she throughout retains her white head, &c. and also she changes back to the full breeding plumage. Of course I cannot say that all the birds I have noticed in bygone years were the same ones, but I think that what I have stated applies to all specimens of this duck.

THE GENUS NYMPHICUS.

By Dr. A. G. BUTLER.

The Horned and Uvæan Parrakeets have been long known to aviculturists in England, as on the Continent; but whereas our Continental friends seem to find no difficulty in keeping them alive and have even bred them successfully, the most expert of English bird-lovers regard them as among the most delicate of all the Psittaci.

The Hon. and Rev. Canon Dutton tells us that he once bought eight Horned Parrakeets which looked healthy, but all died, one after the other, of digestive troubles.

Mr. Seth-Smith also says of the two imported species: "Both species are rare as cage-birds in this country, and very little seems to be understood as to their correct treatment. Both appear to be decidedly delicate." He adds:—"The diet of these Parrakeets in captivity is little understood, but the usual seeds should certainly form the staple food, and a little ripe fruit should be given every day. I should also be inclined to give them occasionally milk-sop as recommended for Lorikeets"

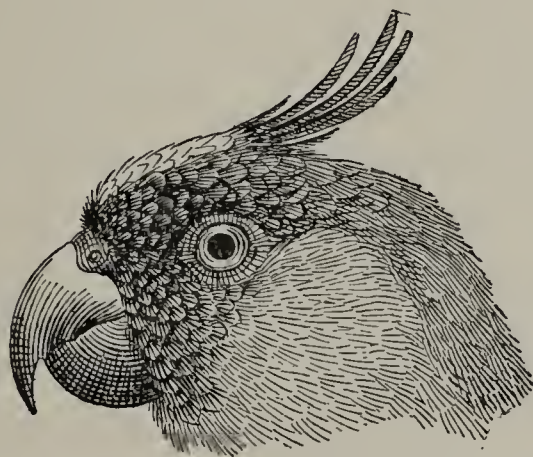
On the other hand Dr. Russ, who (not regarding these birds as especially delicate) may be considered a reliable authority, recommends "all kinds of green food, chiefly salad" (by which I should judge he would indicate lettuce, watercress, mustard and cress, &c.) and touching seeds he says:—"after millet, canary, and hemp, it may be accustomed to all other kinds of seeds, fresh ant-cocoons or ant-cocoon mixture with egg-bread, &c.; also service-berries, a little apple, and mealworms."

After what Mr. Brook has told us recently of the intoxicating nature of service-berries, I should be more inclined to substitute grapes, and in place of egg-bread I should give sponge-cake, though I suppose the latter does contain a certain quantity of egg as well as turmeric or saffron. Anyway it is always easy to obtain sponge-cake and most birds are very fond of it.

I think we may safely conclude that Dr. Russ obtained his information respecting the feeding of *Nymphicus* from Baron von Cornely who, in 1882, succeeded in breeding three hybrids between *N. cornutus* and *N. uvæensis*, and subsequently bred the

latter species. It might therefore be worth while for anyone fortunate enough, in the future, to secure specimens of either of the species, to try the same treatment.

As other *Platycercinæ* occasionally indulge in a partly insectivorous habit, there is no reason for supposing that ants' eggs and mealworms would be unnatural food for *Nymphicus*, and it may be that this and abundant green food are just the very things they require to keep them in health.



HEAD OF UVÆAN HORNE PARAKEET.
(*Nymphicus uvæensis*).

As my friend Mr. Seth-Smith well knows, I am no believer in milk sop for any kind of parrot; it seems to me a hopelessly unnatural food and one that I, personally, should never give to any bird. I would always prefer to mash up stewed fruit with sponge cake for them or, as Canon Dutton says,—dried fig and bun scalded with boiling water and mashed up together.

[A few *N. uvæensis* have come into the market of late, and one is on view at the Zoological Gardens; I am told it talks a little. This species is about the size and build of a Rosella; its prevailing colour is green, with a red spot on the forehead and a blackish mask, and blue on the large wing and tail-quills; *Nymphicus cornutus* differs conspicuously by its crest being composed of two long red-tipped feathers and by its yellow nape-patch. ED.]

NESTING OF THE BLUE GROSBEAK.

Guiraca cyanea.

By W. E. TESCHEMAKER, B.A.

My attempts to breed the Blue Grosbeak extend over a period of five years, during which time I have had no less than twelve clutches of eggs from this species. Eleven times I failed: the twelfth time I succeeded. From this one might be tempted to infer that this is not altogether an easy species to breed were it not that I have noticed that one sometimes has an extraordinary run of bad luck with some particular species. I shall not therefore go so far as to say that this is a difficult subject; nevertheless I have a dim suspicion that the market is never likely to be flooded with home-bred Blue Grosbeaks.

There are certain difficulties to be overcome before attaining success, which are very much more real than apparent; one finds them out gradually as one proceeds. To begin with, this Grosbeak, though not exactly a quarrelsome bird, requires careful watching, because he can, and will occasionally, do a lot of damage with his powerful beak. For this reason I tried a pair in a small enclosure in 1908, which they had entirely to themselves, but they simply played at nesting. They evidently require a fairly large aviary, and, should any other species attempt to nest in their neighbourhood, there will surely be trouble. Then, again, the males are exceedingly uncertain in the temper they show towards the females at the breeding season; at one moment they will be most affectionate: the next they will be seen savagely pursuing their unfortunate partners, and I have several times had eggs and young thrown out of the nest by the male in an apparently uncontrollable fit of passion. Another characteristic of this species, which has contributed to some of my failures, is the exceedingly small size and flimsy construction of the nest, which as a rule will barely contain the usual clutch of three large eggs, and which, as soon as the young begin to grow, invariably sags.

Then there is another consideration, which I put forward only as a suggestion, my notes on the subject being derived from observation of a single individual, and that is that the males apparently take three years to attain the adult plumage and are

not inclined to mate in their second year. I have retained the young male which I bred this season in order to test the accuracy of this suggestion. This bird is now (18th Oct., 1909) in his first moult, and he does not as yet show a single blue feather. In their second season the males are sparsely blotched with dull blue; in their third year they have the full adult plumage, but the colour increases in brilliancy up to the fifth year, more especially the wash of cobalt on the forehead. There is no difficulty in getting nests and eggs from this species. (I have had no less than four clutches from one hen this summer), but the rearing of the young, unless my experience is exceptional, requires the most careful dieting and management.

The eggs of the Blue Grosbeak are large in comparison with the size of the bird, $\cdot 93 \times \cdot 65$; ground colour white with a faint grey-blue tinge, thickly spotted and clouded towards the upper end with reddish brown.

The two young which were reared this summer flew on the 16th July. One was killed by the Blue-bearded Jays in the same manner as the young Jerdon's Accentor recently mentioned: the other I still have.

They were at first distinctly lighter and more washy in colour than the adult hen, but when I parted with the adults in September I should not have been able to distinguish the young male from the adult female, had it not been for the much smaller size of the beak of the former.

MORAL AND MENTAL ATTRIBUTES IN BIRDS.

By Dr. A. G. BUTLER.

In the *Avicultural Magazine*, 2nd ser., Vol. VI., pp. 210-215, I published an article entitled "The Mind of a Bird," in which I pointed out that, as Darwin had stated years before, the senses, intuitions, and sensations of birds differed only from our own in degree, that they stood high in the scale of intelligence and were capable of considerable reasoning power.

On the other hand, as evidence that great mental enlightenment does not necessarily march with a highly developed moral sense, I published an article in Vol. VII., pp. 325-328, entitled

“Morality in Birds,” in which I showed that their animal instincts were depraved and not under control.

In the first volume of our third series, pp. 47 to 50, Mr. G. A. Momber has an article on “Morals in Birds,” in which he questions the correctness of my deductions on the following ground:—that Morality, as we understand it, cannot be applied to the wild creatures of nature: this is the first statement made in my own article, only I say that, in birds it does not exist; and, in proof thereof I cite instances not only of errors of judgment in captive birds, but in wild ones. Hybrids caught in nets in the open country are not, as a rule, the result of misalliance in aviaries, nor are the many cruelties which one daily witnesses in the dealings of strong birds towards their weaker brethren.

I well remember the animal artist, T. W. Wood, speaking with horror of the wanton brutality which he witnessed in the case of a Peregrine Falcon, which amused itself for a considerable time by swooping upon a flock of domestic pigeons, striking down one after the other and leaving their torn and writhing bodies to die miserably, not taking one of them for food but merely destroying for sport: but this is no isolated instance, for most birds of prey maim and mangle far more than they require for their bodily needs.

Moreover, it is all very well to assert that, when confined in aviaries, however spacious, birds are not actuated by the same impulses as when free, but it would not only be very difficult, but I believe quite impossible, to prove the assertion. On the contrary we keep them in captivity in aviaries in order to study their habits, which would be futile if those habits underwent an entire change as soon as birds were enclosed.

As Mr. Momber says:—Evil is “the violation of the moral sentiment,” or, in other words, sin does not exist where there is no law, and he tells us that wild animals are incapable of wrongdoing. Perhaps he is right, who knows? If, however, as he asserts, there is a conscience in the higher animals, does it not seem presumption to assert that there is no perception of law and order in such highly intelligent creatures as birds? Dogmatic statements are not proof.

At this point of his argument Mr. Momber practically

drops morality and turns to mental qualifications and beauty as proofs of the high respectability of birds. Had he read my first paper "The Mind of a Bird" he might have saved himself the trouble of expatiating upon these points. I am not aware that even the wisdom of Solomon rendered him a pattern of morality, nor has beauty always been inseparable from virtue. The fact is that the moral sense in birds is very low; and, however much we may deplore that fact, it is one that cannot be disproved. On the other hand the mental powers of birds are high, much higher than those of many mammals, and it is because of this that we find them so companionable. To argue, as Mr. Momber does, that a bird's mental status and its beauty evidence its high moral condition, and that all its vices are virtues because it is unconscious of sinning, is—well, a little more than I can admit, for the following reasons:—

The mental attributes belong to the higher nature—the soul of creation, whereas the immoral attributes are the uneradicated remains of the animal nature—the body: and although it might be expected that the highest type of mental perfection would control the animal instincts, in birds such perfection has not been attained.

That a bird has no conscience is pure assumption; that, when domesticated, it certainly either acquires or manifests one is indisputable; as it is also, that in many respects, a bird's intelligence attains a far higher level when it is associated with man than when it is free; but, on the other hand, its animal nature becomes apparently lower, more depraved in some ways.

The so-called "domestic virtues" of birds are, I am sure, nothing more than natural impulses due to a condition of the blood recurring at certain seasons; they are liable to be wholly lost by a sudden change of temperature or by shock; hitherto closely guarded young are deserted or tossed out of the nest, and nidification commences afresh. Moreover in wild birds even the "domestic virtues" are sometimes wanting in male birds, as witness the case of the Blackbird which I recorded in "British Birds with their Nests and Eggs," Vol. I, p. 20, which watched each morning until his wife had laid and then devoured her egg: that this trick was not a unique instance seems probable, when we remember how often it is noticed in captive birds.

Affection in birds, as with beasts, is, at its inception, nothing but cupboard-love or pure selfishness; though in time it may cease to be so, and in the case of the domestic dog undoubtedly does: for this reason, if, for my sins, I were condemned to keep some mammalian animal, I should certainly choose a dog before all others, in spite of its boisterous and startling behaviour; but to keep birds, in spite of their delinquencies, is a pleasure: they are, as Mr. Momber admits, among the most beautiful of the inhabitants of our planet, they produce among them some of the sweetest music in nature, and many of them have gradually acquired considerable artistic talent, but in what way such gifts disprove their lack of moral sense I fail to see.

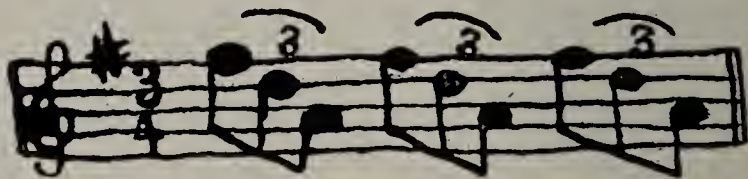
IN MEMORY OF "GEORGE"
AND IN PRAISE OF HANGNESTS.

BY ARTHUR DENMAN, M.A.

It is not certain that even the cognoscenti fully know all with regard to the several varieties of the beautiful bird generally spoken of as the "Brazilian Hangnest," and, therefore, it would ill befit a mere bird-lover to venture on a word as to the differences between *Icterus jamacaii*, *braziliensis*, *vulgaris*, and the rest. All that the present writer can lay claim to is the privilege of having been on terms of intimate friendship with a good many Hangnests, and the honour of having enjoyed the completest confidence of the prince of all their race,—"George."

Of him first. He (or was he, all the time, she?) was given by Mrs. Price to the Zoo. in 1906, and was described as "Brazilian Hangnest" (*Icterus jamacaii*). Let it here be mentioned and noted that he had blue ceres to his eyes.

It was early in 1907 that he and I became known to each other. At that time he would perch on the finger of any reasonably quiet visitor who would thrust his through the wires, and would pipe his call as cheerily for one as for any. From the first day of our



acquaintance "George" and I became fast friends, and it was from that moment that I took to paying daily visits to the Western Aviary. After a very few of these, he would allow me (and very likely it is that he would allow anyone else who had tried) to stroke him on the head and the back, to place my hand right over him, to take him up and to put him bodily into the pocket of my coat or my trousers, or into the breast of my coat, from whence he would put out his head and sing. He would then suffer himself to be turned over on to his back and to be placed on the top of my hat, where he would lie perfectly still, or on to the palm of my hand, where he would deftly catch a mealworm dropped from a distance of two or three feet.

He would catch a piece of tissue-paper, rolled up into a ball, unerringly, and would fly off and play with this until invited down again, when he would at once return to the hand of the visitor.

Mist, the then under-keeper, was devotedly attached to "George," and, whilst these tricks were in progress, would never omit to murmur in tones of intense admiration "Ain't he got a nerve, Sir?" adding, in those of deepest affection, "You bounder, George!"

In December 1908 "George" fell ill. I was allowed to carry him down in the breast of my coat to the Small Bird House, where Sutton carefully tended him, but he died in a week from pneumonia. His remains were given to me, a kindness which was greatly appreciated, and they are before me as I write, stuffed in his most eccentric attitude—on his back, with a mealworm in his mouth. Under him is the inscription: "In manu mea sic jacebat et cantabat. Obiit 15 Dec., 1908." Many, other than I, mourned "George."

Having thus had it revealed to me how charming was the nature of these birds, I bought one for myself. "Jim" was quite untamed and timid when I got him, but so docile was he that, in ten days, he would come on to my hand for his mealworm. In less than a month he would fly down from any part of the room and settle on my hand or on my head, or on that of a bald-headed friend of mine, and was perfectly "at home." He would even come under an up-lifted sheet of my bed and hop about on my

legs. One day, the window having been left open whilst he was having his bath, he flew out from the third floor, and was heard singing two hours later from the roof of a house three doors off, and 80 or 90 feet from the ground. On his cage being shown to him through the trap-door he flew down into the house and on to an out-stretched finger!

For "Jim" I got a companion—not a stable companion, for these *inter se* are pugnacious and jealous birds, puffing themselves out and croaking and swearing at each other in a most violent and ridiculous way whenever brought near to each other.

My second venture "Tim" was the most audacious rascal of a bird that I had hitherto met with, and had many of the traits of a Magpie. Perfectly wild when he first came, it was only about ten days before he, too, became finger-tame; and from that time he educated himself. He would get on to my dressing-table, fly up on to my hand when I was shaving, return to the table and commence an inspection of every single article thereon, chucking the studs on to the floor, opening every match-box and pulling out one or more of the matches, prising open envelopes and trying to withdraw the contents, and so on.

He used to creep up a newspaper rolled up and held at an angle of 45°, emerging at the top with a croak to fly on to my head and give me a friendly peck. This most amusing and interesting bird was left in a draught and died in April 1908. His body is in the Natural History Museum, described as *Icterus vulgaris*, and he had blue about the eyes. On the day of "Tim's" death "Jim" broke out into song for the first time, and continued to sing lustily until he moulted in the autumn.

In May 1909, another Hångnest was given to me. "Dan" had lived in Madeira, where his owner had allowed him to fly loose all day, and he had been in the habit of returning to his cage at night. But beyond that he would come and take a meal-worm from one's hand when in his cage, he was not tame when he came to me. He is a most engaging bird and, on the approach of his friends, he throws his head back and flutters his wings and croons and chirrup in a manner most clearly indicating pleasure. It sounds hardly credible, but it is a fact, that he will almost always retire into his cage before voiding! He is on the high

road to becoming as tame as "George," and already is as tame as *was* my "Jim." That word has to be written, for poor "Jim" died this summer whilst spending his holidays at the Zoo. Neither "Jim" nor "Dan" had any blue about their eyes.

I have at the present moment yet another Haugnest, "Pan"—so called by my daughter because he pipes—who promises to be as good company as the others have proved themselves to be.

It is impossible to imagine any more delightful cage-birds than Haugnests. They have a strong sense of humour and a delicious spice of devilment in their nature. "Dan" and I play every morning at "catch" and "touch," and he evidently enjoys doing so.

But two faults they have, and two only. They will peck with extraordinary rapidity and accuracy of aim at one place on a finger, indeed so vigorously as to draw blood; and, secondly, they have a tendency to fly at the eyes of those with whom they are not acquainted. But when once they have learnt to recognise their own family circle, which they do in a very few days, the vigour of their peck abates and they never attempt to fly at eyes.

On one occasion a foreign lady, who had rather a pale complexion, came into the Western Aviary with me to see "George." He flew straight at her face, and it was only her veil which protected her from some injury. Her nerves were a little shaken and, wishing to make her forget the incident, I said—"I am so very sorry, but I think that the cause must have been your being in white. He saw only your lips and took them for cherries." For some reason or another this speech seemed to salve the lady's feelings enormously.

In the Royal Natural History it is stated that whilst some of these birds construct pendent, others build cup-shaped, nests. For the latter statement I can vouch, for towards the end of 1907 one resembling "George," blue cere and all, built a nest in the Western Aviary, which was made of leaves and long pieces of string, and omnibus tickets! But I must not encroach on the province of those from whom we learn.

Let me just say a few words as to diet. All my birds have thriven well on a mixture of boiled potato, hard-boiled rice, carrot, crushed sweet biscuit, a few soaked currants, a little hard-

boiled egg, some ripe banana, and a grape or two. It is a good thing to give them a few small strips of raw meat every other day and six or eight mealworms will not hurt them. They want and enjoy a bath every day, and are very much the better for lots of flying exercise. Half an orange fixed on a nail on their best perch is a *sine quâ non* to their health.

They appear to be peculiarly sensitive to draughts, but can stand any amount of still fresh air.

Their notes are as melodious as those of a flute, and are always rhythmical, tuneful, and, in some cases, amusing. Some think that they can be taught to imitate calls. My experience leads me to doubt this.

To my mind their black heads, shirt-fronts, tails and wings, contrasting with the delicate yellow of their breasts and bodies (a yellow that is a bright orange after the moult, but gradually fades into the most lovely canary tint), form a combination which is hard to beat, though they would undoubtedly be still more beautiful but for the presence of a little white on their wings.

At the risk of increasing their price I must say that, as amusing, lovely, companionable, and interesting birds, they are well worth the 30/- to 50/-, which is their usual price.

REVIEWS.

EGYPTIAN BIRDS, by CHARLES WHYMPER. Published by ADAM and CHARLES BLACK, Soho Square, London. Ordinary Edition 20/- net; Edition de Luxe (Limited) 42/- net.

This beautiful book will prove of great interest and assistance to bird-loving visitors to that wonderful land, the tomb of an ancient civilization and the gate of the glorious East, which is now so popular as a winter resort. Although the birds of Egypt are largely migrants from the North, and so familiar to us already, many are such as are not often to be seen wild here, and a few are characteristic tropical species, such as the Pied Kingfisher and Green Bee-eater, both figured in this book, which has no less than fifty-one full-page illustrations, all in colour. Many of these are very beautiful, such as that of Cream-coloured Coursers in the desert, and that of Buff-backed Egrets—the “Sacred Ibis”

of the mendacious dragoman—in attendance on buffaloes. The plate of flying birds is also happily conceived and useful. The text is chatty and interesting, and deals with a good representative selection of Egyptian birds, while a full list of the bird-fauna is given at the end of the volume.

So charming a book is likely to run into several editions, so it is as well to point out a few points which need revision. The plate of the Pale Crag Swallow has nothing referring to it in the narrative, though the bird is mentioned in the list; the bird which builds the edible nest, of saliva, incidentally alluded to in the text dealing with Swallows (p. 64) is a Swift, not a Swallow at all; the Sacred Ibis is not, as anyone can see at our Zoo. here, “a moody sort of bird,” but quite lively for a large wader; and the Woodcock seems to be literally “dragged in by the ears,” for it is not mentioned as at all a characteristic bird, while some attention is devoted to the unusually forward position of its ear-orifice, which Mr. Whymper seems to think he was the first to discover, though as a matter of fact this peculiar situation was known to, and figured by, Nitzsch, about three-quarters of a century ago.

These are, however, but small points, and the book can be cordially recommended both to those travellers for whose use it is primarily intended, and to those home-naturalists who like to be able to acquaint themselves with the birds of other lands in freedom, and incidentally to get some idea of the brightness of nature under an Eastern sun.

F. F.

TOMMY'S ADVENTURES IN NATURELAND. By Sir DIGBY PIGOTT, C.B.
WITHERBY & Co., 326, High Holborn. Price 2/6 nett.

By the act of a fairy Tommy is changed into various beasts and birds, and his adventures in the company of his companion, the fairy, similarly disguised, are recounted in this little book, which may be described as a sequel to ‘The Changeling,’ by the same author. Like its predecessor it is written essentially for children, and the stories are told in simple well-chosen language, and illustrated by several coloured plates and many line figures in the text, the work of the author himself and of Mr. Carruthers Gould. Let it not be supposed that the

tales are fanciful or overdrawn. Far from it. The purpose of the author is to give a true account of what happens in nature ; and the first chapter tells of the things Tommy saw, under the guise of a cock pheasant, in the woods at night ; and the second, his experiences on the following day during a covert shoot. Later on he goes to the Arctic Regions as a Glaucous Gull and falls in with polar bears and walruses ; and, finally, as a Starling he travels back in time and makes acquaintance with his remote ancestor, the *Archæopteryx*. On closing the book we cannot repress a feeling of regret that the educational advantages it represents were not in vogue some five-and-thirty years ago when we were children ourselves.

We cordially recommend "Tommy's Adventures" as a Christmas gift for 'kiddies' with a taste for natural history.

R. I. P.

THE WATERFOWL OF INDIA AND ASIA, by FRANK FINN, B.A., F.Z.S., M.B.O.U. THACKER & SPINK, Calcutta, 1909. Price, Rs. 2-8.

In an unpretentious little paper-bound volume of 117 pages, suitable by its pocket-size for a field *vade mecum*, Mr. Finn has embodied an account of the Swans, Geese and Ducks of Asia, which will be a most useful guide to the correct identification of the species of the *Anatidæ*, not only for sportsmen and naturalists in India, for whose benefit it was originally compiled, but also for those of Europe, seeing that so many of the birds described are widely distributed in the northern hemisphere of the old world.

The opening chapter contains a section briefly telling the beginner how to distinguish the Duck family from other waterfowl like Gulls, Petrels, Grebes, Cormorants, and their allies, with which they might possibly be confused. Flamingoes also are contrasted with them. We should like, however, to have seen these birds, which are surely nothing but specialized *Anatidæ*, included in the volume. That, however, is an unimportant detail. Another section gives the characters of the four sub-families represented respectively by the Swans, Geese, Mergansers and true Ducks, into which the family is divided. The following chapters deal with the species, their salient characters, habits and geographical ranges ; and the book closes

with two appendices, the first being a key to the rapid identification of the birds described in the preceding chapters, and the second being a useful tabulation of the colour of male birds in full plumage. For a future edition of this excellent little handbook we should like to suggest as an improvement the insertion of the name of the original describer of the species. The method of quoting the species suggests that Blanford and Salvadori were the first to describe them all. The work is illustrated by eleven plates showing profile views of the heads of the males of twenty-three species. In connection with these, we feel sure Mr. Grönvold will not regard as an unkind reflection upon his past efforts our sincere congratulations to him for his great improvement as an ornithological artist.

R. I. P.

THE HOME-LIFE OF A GOLDEN EAGLE. Photographed and described by H. B. MACPHERSON. WITHERBY & Co., 326, High Holborn, London, 1909; 2/6 nett.

The title of this tastefully issued volume of 45 pages and 32 mounted photographs, tells in a measure its own tale; but the account itself must be read ere it is possible to form any just appreciation of the pluck and perseverance of the author in overcoming the hardships involved in watching and recording the doings in an eagle's eyrie; waiting many a long hour, hidden with his camera under an artificial shelter of stones and heather upon a narrow ledge of rock, beneath which the hillside dropt two hundred feet sheer into the brawling stream beneath.

It tells how at first dame Nature retards the growth of strength in the legs of the eaglets lest inexperience lead them to topple over the edge of the nest into the abyss below; how the nest is kept clean by the removal of soiled pieces of branch and heather; how the hen bird, aided sometimes by her mate, brings the daily rations of grouse, hare and rabbit to her offspring; how, as the time for flight draws near, the young bird, as if conscious of his growing strength, impatiently flaps his wings and starts to wander about the ledges and boulders in the vicinity of the nest, always, however, returning at nightfall or when rough weather overtakes him. And, finally, it tells how after a sojourn of eleven weeks in the eyrie, the young bird, stimulated

by the repeated calls of his mother, at length summons courage to launch himself into space to start a new phase of his career, for ever beyond the camera's reach. All this, and much more, was seen and photographed by Mr. Macpherson in the summer of this year of grace 1909, under climatic conditions which may be left to the imagination of those who have spent the last nine months in Great Britain. The rest of the young Eagle's story is left to conjecture. "If we are fortunate we may even watch his attempts to catch a hare, and see how the Red Grouse scorn his clumsy efforts to take them on the wing. We may even witness the last and strangest scene in the drama of an Eagle's life, when the devoted parents, who for five long months have tended their offspring with loving care, turn on him as on a foe and drive him forth into the outer world." We quote this concluding paragraph to give an idea of the author's stimulating style, and to attest the naturalist's enthusiasm and love of his subject which pervade every page of the story. R. I. P.

BRITISH BIRDS FOR CAGES, AVIARIES AND EXHIBITION, by SUMNER W. BIRCHLEY, N.B.B. & M.C., L.P.O.S., &c. Two Vols. 234 pp. and many plates. SHERRATT & HUGHES, London, 1909. 25s. net.

Books on British Birds have of late years flooded the market, but the present one by Mr. Sumner W. Birchley, although having a familiar title, has struck out on a new line and deals with the caging and exhibition of those species which are more or less adaptable to cage life.

The scheme of the book closely follows that of Bechstein's *Cage Birds* and the information under each species is divided in headings dealing with Description of Plumage, Habitation, Nest, Eggs, Countryside Notes, Catching, Miteing Off and Steadying, Feeding, Hand-rearing and Exhibition, and gives under each heading clear and definite instructions.

The author is evidently a practical man who knows his subject; he has had to fall back for his information on no outside authority, and his experience is practical, serviceable and to the point.

As regards the ethics of caging and exhibiting British Birds different opinions are held, and the Avicultural Society as a body does not set itself up as a "show" Club. In the writer's

opinion wild birds are not suitable subjects for competitive exhibitions; the classification is bound to be unsatisfactory and any reliable system of judging impossible, while the continuous bustle and travelling must involve a certain amount of cruelty.

On the other hand, the sight of our native birds alive and in first-rate trim, as show specimens have to be, cannot fail to stimulate an interest for the natural inhabitants of our countryside and that feeling and love for Nature which should by all means be fostered.

The keeping of birds and animals in confinement is common to all races of mankind but the lowest, and will never die out; hence the value of a book whose information is sound as in the present case—for it cannot fail to alleviate the inevitable cruelty which must arise when an animal is first caged. This cruelty is reduced to a minimum in skilled hands, and the subsequent release from enemies and abundance of food more than compensate the captive for his loss of freedom, while he at the same time gives abundance of pleasure to his owner. Unfortunately there are many who, with the best intentions in the world, are woefully ignorant of the needs of their captives; for such as these, this book, the only one of its kind, will prove invaluable, and if they follow its instructions not only will their pets live in health and happiness, but they themselves will derive a greatly increased satisfaction in watching the many little ways and antics which are only shown by birds in the pink of health and condition.

The book is further completed by chapters dealing with Cages and Aviaries, Moults, Ailments, etc., so that it forms a complete *vade mecum* to the beginner while containing many hints of use to older hands. It is illustrated by numerous full-page black and white plates, some of which, however, leave much to be desired.

J. L. B.

CORRESPONDENCE, NOTES, ETC.

TREATMENT OF HAZEL-HENS.

SIR,—I should be glad if any of our members who have practical experience in the management of Hazel-hens (*Tetrastes bonasia*) would give me the benefit of their experience. A friend of mine has promised to try to get me a pair or two of these birds from Sweden. They are, I

understand, very difficult to catch as they very seldom leave thick cover, but sooner or later no doubt I shall obtain some.

So far, I have not been able to find anyone in England who has kept Hazel-hens, and it seems to me a pity that such an interesting game-bird of Northern Europe should be neglected, if indeed it is practical to keep them in health in captivity.

Baron Klinckowstrom, of Stafsund, who has kindly made enquiries of the Director of the Zoo. at Stockholm, informs me that the Director says: "The food to begin with should consist of berries (*Myrtillus nigra*, *Vaccinium vitis-idea*, *Oxycoccus palustris*, &c.) fresh or preserved; white bread soaked in water, peas also softened in water, birch buds, and so on."

All this is doubtless correct in theory, but difficult to carry out in practice—hence my request for the benefit of any fellow-members' experience.

If Hazel-hens will take readily to grain or seeds as their main food (as Willow Grouse, for instance, do) they should not be difficult to keep. If, on the other hand, they are capricious and difficult to get to take grain or seeds (as Rock Ptarmigan are at first) then my attempt to keep them in captivity may not be successful, as, under my present conditions, I cannot ensure a constant supply of berries and birch buds.

C. BARNBY SMITH.

CONCERNING THE PORTRAIT OF THE ABYSSINIAN LOVE-BIRDS.

SIR,—They say that a dog should have his due, so that perhaps as my trumpeter is either defunct or not forthcoming, I may be pardoned if I remind you that the original painting of my pair of Abyssinian Love-Birds, a coloured plate of which forms the frontispiece for the November Part of this Magazine, was done by myself. The late Editor wrote to me, to Italy, at the time, saying that he liked the pose of the birds so much that he should have my coloured sketch of them *copied*.

This sketch I did from life, the male was posted at the extremity of a dead bough, and the female had just come out of the nesting-box towards her mate.

The only addition to my original sketch is the palm tree in the background.

HUBERT D. ASTLEY.

[Many apologies for this oversight. ED.]

POST MORTEM EXAMINATIONS.

OCTOBER and NOVEMBER. *Answered by post:*

Mr. Alfred Barlow.
Mrs. Noble.
Mr. W. H. St. Quintin.

Rev. W. J. Constable.
Mrs. B. H. Younger.
Capt. W. H. Seppings.

ARTHUR GILL, M.R.C.V.S.

NOTICES TO MEMBERS—(Continued from page ii. of cover).

NEW MEMBERS.

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Mr. W. H. RAVEN; 239, Darby Road, Nottingham.

Mr. R. E. HOLDING; 46, Mortimer Street, London, W.

Mr. GREGORY M. MATHEWS, F.L.S.; Langley Mount, Watford, Herts.

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Proposed by Dr. A. G. BUTLER.

Dr. GRAHAM RENSHAW, M.B., M.R.C.S.; Bridge House, Sale, Manchester.

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CORRECTION OF ADDRESS.

On p. 12 in the November number, at the bottom, the name, etc., should read PAUWELS (not PAUWEL) par Cortenberg (not Cortenboys).

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AVICULTURAL MAGAZINE.

Edited by FRANK FINN.



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Persons wishing to join the AVICULTURAL SOCIETY are requested to communicate with either of the Hon. Secretaries or the Editor.

NOTICES TO MEMBERS.

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All MSS. for publication in the Magazine, Books for Review, and Private Advertisements should be addressed to the Editor, Mr. FRANK FINN; 35, St. George's Road, Regent's Park, London, N.W.

All Queries respecting Birds (except *post mortem* cases) should be addressed to the Honorary Correspondence Secretary, Dr. A. G. BUTLER, 124, Beckenham Road, Beckenham, Kent.

All other correspondence, and Subscriptions, should be sent to the Honorary Business Secretary, Mr. R. I. POCKOCK; Zoological Society's Gardens, Regent's Park, London, N.W. Any change of address should be at once be notified to him.

Advice is given, *by post*, by members of the Council to members of the Society, upon all subjects connected with Foreign and British birds. All queries are to be addressed to the Hon. Correspondence Secretary and should contain a penny stamp. Those marked "Private" will not be published.

The Magazine is published by Mr. R. H. PORTER (7, Princes Street, Cavendish Square, W.) to whom all orders for extra copies, back numbers, and bound volumes (accompanied by remittance) should be addressed.

Cases for binding Vol. VI., New Series, of the Magazine (in art cloth, with gold block on side) can be obtained from the Publisher, post free and carefully packed, at 1/6 each; or the Publisher will undertake the binding of the Volume for 2/6, plus 8d. for packing and postage. All orders must be accompanied by a remittance in full; and members are requested to state whether they want the wrappers and advertisements bound in at the end or not.

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JANUARY, 1910.

HYBRID AUSTRALIAN CRIMSON FINCHES AND STAR FINCHES.

By HUBERT D. ASTLEY.

For some two or three years a male Australian Crimson Finch had paired off with a female Star Finch, in my aviary in Italy, and although they had built nests on several occasions and even laid eggs (at least *she* had), nothing had come of it.

In 1908, I left Italy in May, and did not return until February 1909, when I found the Lake of Como much the same as Dr. Cook must have found the North Pole. Such frosts and continuous snow had not been known within the memory of man.

Arriving in a blizzard, my first question of my Italian man-servant was—"How are the poor birds in this awful weather?"

He sadly shook his head, but answer came there none! "Please," I said, "put me out of my agony."

"Eleven were picked up this morning, Signore, in the aviary."

A tea-tray was produced, which for the moment was acting as a bier. Some African Singing Finches were there, and some Parson Finches. I at once saw the corpse of the male Australian Crimson Finch, who had wintered not once nor twice in an unheated aviary, and beside him lay his Star Finch spouse, and beyond her lay, all in a row, five other little birds, new to me, but I discerned their identity in a moment.

They were full-grown, having been hatched in the summer of 1908, in my absence. Father, mother, and five grown-up

children, all gone in one night! One of them was hardly to be distinguished from a pure-bred Star Finch; a second was decidedly of that species, but not quite so pure, and the other three favoured the father both in colouring and shape: and very handsome they were.

An interesting family. They must have been roosting in the open all together, and were beaten down by the snow which fell constantly and thickly all through the night.

ON THE NESTING OF THE BAHAMA AMAZON.

Chrysotis bahamensis.

By J. LEWIS BONHOTE.

In the *Avicultural Magazine*, Ser. 2, Vol. II., p. 239 (1904), I wrote a short article on some parrots of this species, which I had brought back with me from the Bahamas.

During the intervening years they have inhabited an outdoor aviary with a slightly warmed inner compartment into which they could retire and escape the worst of the weather. Under these conditions they have lived for several years in peace, happiness, and apparently in the best of health.

In 1905, when I moved to my present home, I separated them into pairs, placing the pairs in adjoining aviaries, and hoping by that means to induce them to breed, but without result.

About July 1908, however, two birds in different aviaries were observed to be continually feeding each other through the wires, and shortly afterwards the male had eaten his way through to join his chosen mate, while the remaining occupant was given a rather bad time. Needless to say, matters were soon readjusted, but I waited for results in vain.

During last winter the hen nearly died from a very bad cold, but luckily she recovered, and by early spring was again fit and well. This year, however, they showed no signs of pairing and I had given up hope, till on the 4th of June I missed the hen. She was nowhere to be seen, so hoping for the best I kept a close watch, and on the following day I saw her feeding and the cock standing guard by the nest box.

I now guessed that my hopes were to be realized, in part at any rate, so choosing a suitable opportunity, when they were both feeding, I peeped into the box and found two white eggs, very similar in shape and texture to pigeon's eggs. They were warm, but apparently clear; however, I left them and tried to find some reference to the period of incubation, but in vain. After much search I found that Cockatoos are said to take twenty-three days, and Parrakeets from nineteen to twenty-one, but of the true parrots there was nothing recorded. The hen sat steadily, only coming off to feed in the morning and evening, and evidently carried on the whole of the incubation duties, while the cock sat outside in proximity to the nest. On the 23rd day I ventured to take another peep, and found she had laid another egg, which was fertile and 'hard set.' Again I left them; after ten days she gave up sitting, and a look in the nest showed that the young one had hatched—and died.

After waiting all these years it *was* a disappointment, and all the more aggravating as I had been able to establish no new information regarding the period of incubation or nesting habits. One can only hope for better luck another season, but meanwhile I write these notes, as it is, I believe, a record for an Amazon Parrot to have successfully hatched in captivity.

THE NESTING OF THE GIANT WHYDAH.

Chera procne.

By W. E. TESCHEMAKER, B.A.

I have always had a hankering to breed the Giant Whydah—just one of those inexplicable impulses that involve the wasting of much valuable time which might have been employed in doing something useful.

This hankering dates from the day when I first turned out a male *Chera procne* in an out-door aviary. As he sailed majestically round and round, his sable train streaming in the wind, he seemed a very king amongst birds. I have not the least idea what the native name of this species, "*Sakabulo*," means, but it seems to me to convey the idea of some dusky potentate of the "Dark Continent" and from that day to this I have called all

my male Whydahs "Sakabulo." Sakabulo the First is still in my possession and will follow me round the aviary like a pet kitten.

Now the first difficulty in the matter of breeding the Giant Whydah was to obtain a hen. Several were sent to me by various dealers who were prepared to make an affidavit that they were hens, but "Sakabulo" would not tolerate them for an instant—in fact he fairly wiped the floor with each and all of them. So passed the summer of 1907.

Early in the following year I saw an advertisement offering a private consignment of this species. This sounded much more hopeful and I had one sent on approval. Alas, it was simply another male out of colour. I wrote again to the importer, asking if he could not find something more like a hen. He did, and at last I was the proud owner of a genuine hen *Chera procne*. Let me here say that, having once seen a hen, you can never again fail to recognize one. She is only two-thirds the size of a male and is entirely brown with black striations on the back. A male, so far as my experience goes, no matter in what state of plumage he may be, is always black on the inside of the wing and has some yellow feathers on the "shoulder," and, as I shall subsequently show, he acquires these characteristics at the early age of ten weeks.

During the fine warm summer of 1908 I had, therefore, a genuine pair of this species in a fairly large aviary with some cover in the form of bushes and coarse grass growing in tufts. We got a little nearer our goal this season because we had several good nests constructed by the female—one in a bush and two in the grass—but I am not sure that any eggs were laid. We also had a very interesting nest constructed by the male alone in an *Euonymus* about three feet from the ground. He built it in two days, and I watched him at work and can testify that he had no assistance whatever from the female. It was as round as a cricket ball, firmly woven but not very cleverly finished off round the entrance. This achievement caused me to ask myself whether the male of this species is really such a polygamist as he is popularly assumed to be. We shall have something more to say on this subject later on.

I commenced the season of 1909 by building a new aviary,

or perhaps I should say that I ought to have commenced the season in this way. As a matter of fact it was not begun until the middle of April and not finished until the middle of June.

It has always amused me very much to see what a shock my aviaries have been to various members who have been kind enough to come and look over them. One avicultural expert came here with two cameras and several note-books: I think he expected something after the style of the Western Aviary at the Zoo. He tried to be merciful in the account he wrote of them but he could not resist one scathing remark—"there are no service-passages." I am afraid my new aviary has proved even a greater shock than the old ones, so I will not harrow our members' feelings by saying anything about the design of it. Two of our lady members inspected it the other day, and timidly asked "where is the shelter?" When I had to admit that the only shelter was the 18 inch square zinc screen over the food-tins I could see that their kind hearts ached for my poor birds. In constructing the new aviary we kept a corner for the Whydahs. I said to myself that the Whydahs are marsh-birds and that we must have a marsh. That marsh took a lot of making. First we built a tank 8 ft. square and 1 ft. deep. Then we went three miles out into the country and dug up reeds and rushes and tussocks of a kind of pampas-grass. At the end of June we introduced "Sakabulo" and his bride to the new aviary. This was not my old friend "Sakabulo I." but a younger bird that had just come into colour. One of the first things the "Sakabulos" inspected was the marsh and they seemed to be much impressed by it. True, it was not extensive but they evidently came to the conclusion that it was a genuine marsh, or at all events the nearest thing to a marsh that they had seen since they had left the Dark Continent.

After a few days however, their interest in the marsh seemed to wane: Sakabulo was generally to be seen sitting on the topmost bough of a tall Cupressus, and the female began to construct a nest in an Austrian pine—of all places. But one evening, just as it was getting dusk, I happened to look out of a window which commanded a view of the aviary and I saw something that interested me. The female Whydah was flying round and round the enclosure evidently on the look out for spies and, having

satisfied herself on this point, she dropped quietly into the marsh. Then "Sakabulo" glided in a stealthy manner down from his perch and slipped as silently as a shadow into the rushes close to her. Next morning I walked round and round the marsh, inspecting it closely. It seemed much as usual except just one place, where the sedge seemed to have been drawn together in a kind of knot. I went down on hands and knees and under that knot was a perfect nest of the Giant Whydah and in it a single large egg. It was the 19th of July. There is an old Devonshire saying—"they be where they bain't," which, being interpreted, means "do not look for them where you would expect to find them"—and this might well stand as the family motto of *Chera procne*.

For the next few days I wanted no better occupation than that of watching the Whydahs. From dawn till dusk "Sakabulo" was ceaselessly active. At one moment he was to be seen running with extraordinary rapidity amongst the long grass and rank weeds, looking like an unusually lithe and dusky Polecat. The next he would be sailing round and round the aviary in wide circles like some strange model aeroplane. Continually with hawk-like swoops he would dash at some unoffending neighbour, who had come too near the marsh, pursuing the victim with marvellous power of wing through all the twists and turns of the chase. The popular fallacy that a male Giant Whydah in breeding plumage cannot fly in a high wind is an amusing one. On the 10th July the Exeter Cage-Bird Society, to the number of twenty-eight, came to have a look at my birds. On the afternoon of their visit it was blowing a gale of wind, yet they all remarked on the powerful flight of "Sakabulo." The suggestion that the bird cannot fly in heavy rain is equally fictitious: I will undertake to say that the heaviest rain that ever fell in this country could not possibly wet the plumage of a Giant Whydah in good condition. The love-song and dance of this species once seen can never be forgotten, the male posing erect and on tip-toe before the female, the long feathers of the neck erected as a hood, and emitting that weird long-drawn note which I can only describe as a combination of hissing and spluttering.

It is singular that when an adult male is grasped in the

hand it generally utters this strange sound, showing that the latter is also minatory. The female and the young, however, do not avail themselves of this means of defence though, one would think, they require it more. One may well ask of what use can it be to the male. We have the answer to this, I think, in the habit of the male (alluded to above) of roosting on the ground amongst rushes and close to the nest. It seems a reasonable supposition that he thereby protects himself (and possibly the female also) from grazing and predatory animals. The reason that the female and the young do not also produce the note is probably simply that they cannot do so or possibly that, being protectively coloured, they find quiescence pays best. In any case the fact that the most characteristic note of the love-song is used also as a means of defence, is worth noting because it is possibly unique. Another habit of the male which I will notice is that of hovering over the nest, the wings drawn up almost vertically above the back like the Montagu Harrier or the Short-eared Owl, the tail dropped below the body in sickle shape and so extended as to show every feather, with frequent utterance of the call-note, "*chit-chit*." At such times we have the display of the Giant Whydah at its very best, the bird, as it floats lightly on outstretched pinions, looking like nothing so much as one of these weird representations of oriental art which we see on Japanese screens. Some time since I spent a delightful afternoon in the aviary of our member, Mr. Reginald Phillipps, who told me that he thought that this display of the tail was effected by the stiff upper tail-coverts depressing the long rectrices. I have examined two males lately with a view to confirming the observation, but I have not been able to detect any separate muscular action of the upper tail-coverts; also I cannot help thinking that, if the tail-coverts pressed the upper rectrices forward and the wind pressed the lower rectrices backwards, the tendency would be for the tail to be compressed into one mass, whereas actually each individual feather stands out distinctly. Nevertheless Mr. Phillipps' opinion is, as I need hardly say, a much better one than mine. The twelve long feathers of the train are implanted in V shape, six on each side, the longest (and these sometimes exceed 17 inches in length) being the next to the topmost pair.

We will now consider the nesting habits of the female. The first point that impressed itself on my notice was that she continued assiduously adding to the nest after the first egg was laid, up to, and even after, the time that incubation commenced. I could not quite make out what she was doing until I made another careful examination of the nest. When first I saw it (19th July) it was so constructed that the entrance hole looked right into the centre of the cup of the nest, and the cavity was exceedingly small. She now commenced to force out one wall of the nest, working very fine grass into the interstices. The result of this was that she so altered the position of the cup in relation to the entrance hole that it was no longer possible to look directly into the nest. She never alighted directly at the entrance but approached it by a well-defined path through the long grass. After a few days she drew the grass together over this path, thus forming a tunnel.

The second egg was laid on the 20th; the third on the 21st, and the fourth, and last, on the 22nd. She commenced to sit on that day, and was so unsteady for several days that the near approach of anyone to the aviary was sufficient to make her spring from the nest in wild alarm. She came off about every two hours to feed, and was never fed by the male. There is never the least difficulty in ascertaining when a female of this species commences to sit, for her tail is at once deflected to a semi-circular shape by contact with the walls of the nest, as also may be observed in the case of the Long-tailed, or Masked, Grassfinch when incubating.

On the 2nd August, at 10.10 a.m. I closed the screens, thus making her a prisoner, but at 10.20 a.m. she was back on her eggs. Most unfortunately I did not succeed in enclosing "Sakabulo" with her, which was the more annoying because I particularly wished to ascertain what part, if any, he would take in rearing the young.

I am not quite sure of the period of incubation, because, as I have said above, it was not possible to look directly into the nest, but I can make an approximate guess from the behaviour of "Sakabulo." On the 3rd August he was very excited, and what particularly interested me was that he was continuously

searching for insects in the grass—a thing he had never done before. I asked myself why he should do this if, as we are told, the male Giant Whydah takes no interest in his progeny.

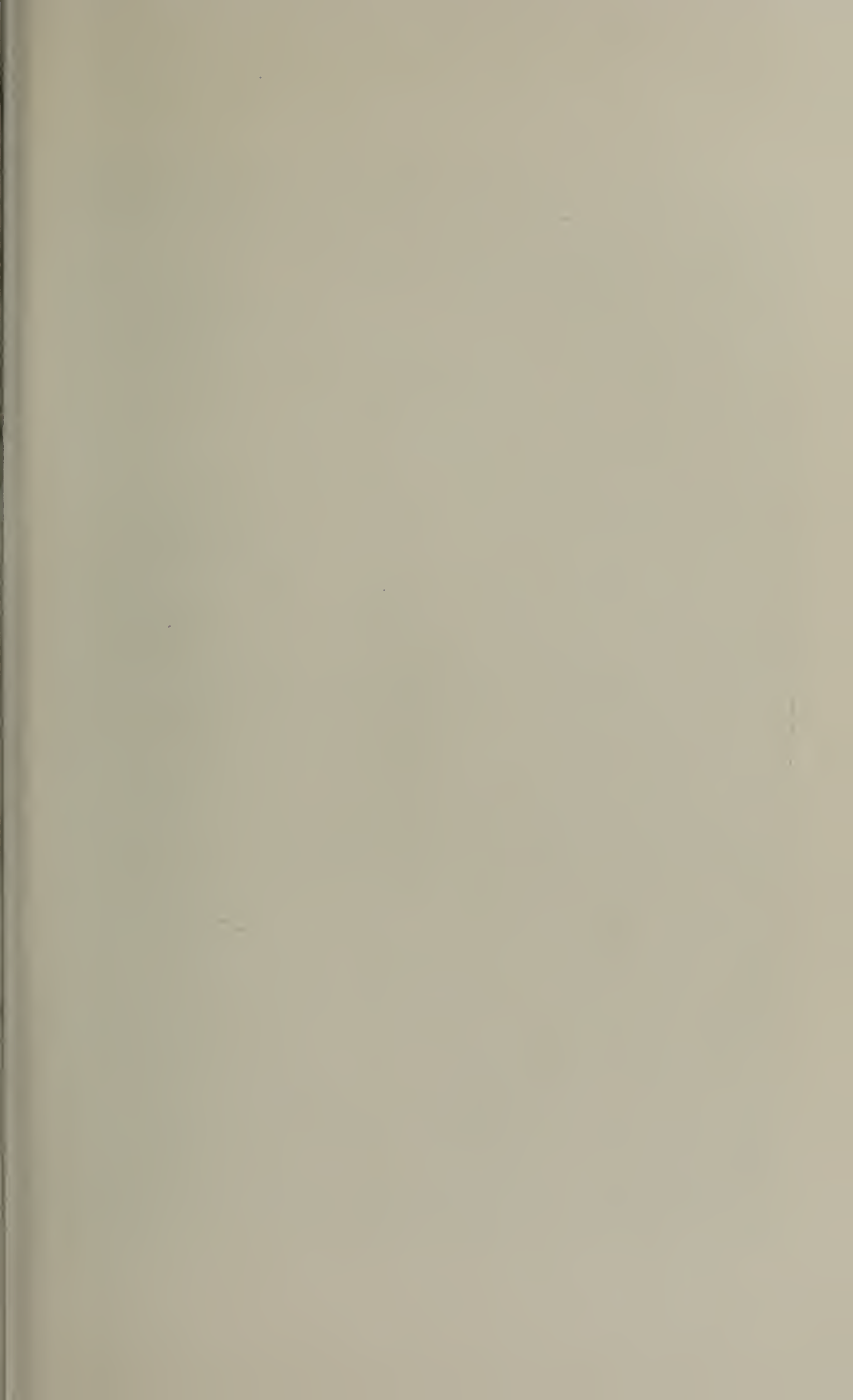
I obtained my first sight of a young Whydah on the 9th, on which day a little head covered with light grey down was thrust forth from the entrance hole. On the 14th I saw two young—queer little objects with very dark eyes. On this day the female pulled away some of the nest material round the entrance, apparently to give the young more air, for from the 5th to the 17th we had the only hot weather of this most inclement summer, the 9th being the hottest day experienced at Teignmouth for many years, with a shade temperature of 83°. I supplied plenty of insect food, and the female also foraged for her family in the long grass. I watched “Sakabulo” closely through binoculars. He evidently took the greatest interest in the course of events, perching close to the netting which separated him from his family, and every now and again, after searching for insects, he would go close up to the hen at the netting. My impression is that he passed insects through the netting to the female, although, owing to the length of the grass, I cannot state this as a fact. Taken in conjunction, however, with the fact that the male can build a nest and his general demeanour it leads me to think that he assists in rearing the young and may even be occasionally monogamous.

About this time our difficulties began. The first of our troubles was the wasps which invaded the aviary in battalions and carried off our insect food as fast as we supplied it. Then the weather broke on the 17th, and thereafter we had nothing but a succession of gales of wind and torrents of rain; in fact, it seemed impossible that any young birds should be reared in an absolutely unsheltered aviary, exposed to the full fury of the elements and with only a single parent to feed and brood them. Success was solely due to the unfaltering devotion of the female: the clever way in which she managed the young and took advantage of any little assistance which we could render, without any fuss or any sign of fear, was beyond all praise.

I examined the young closely on the 18th. There were three of them, fine large birds with a somewhat uncanny appear-

ance, due to the fact that the down had disappeared from the crown of the head, leaving a light patch over each eye. They all gaped widely and at first appeared to be simply asking for food, but, when they remained rigidly fixed in this position for several minutes, glaring at me with their dark eyes, it dawned upon me that this was a deliberate pose, and that they were trying to frighten me. This caused me to ask myself whether the curious marking of the palate of some young birds, which has generally been explained as an aid to the parents in feeding, may not be really a device for scaring off intruders. In the case of the Bearded Tit for instance, the markings closely resemble teeth, which is significant.

In the annals of every aviary (which is not a total failure) there is one particular day in every year which is different from all other days. It is the day when the young of the most interesting nest of the year make their first appearance in public. Last season we celebrated here the occasion of the first breeding of a British Bunting: the year before of a Tanager. This year my birds wanted to hold a "fiesta" for our young Blackcaps: they said they were the first Warblers to be bred in an aviary, but I had to explain to them that no one seemed to know whether the Blackcap had been previously bred or not, and that it would be better to make the young Whydahs the *piece de resistance* for 1909, because, for once in a way, we had beaten the Germans. So on the 18th August we held wassail, for on that date the first young Whydah flew. I distributed mealworms all round with lavish hand, and every bird had as many as he could carry. The Laughing Thrushes laughed till they could laugh no more. As for "Sakabulo" he went round and round the aviary like a shooting star, bowling over one victim after another. On the 19th the two other young birds made their appearance and proved to be both hens and almost exactly like their mother, a little lighter in colour. The first youngster, however, was a male and much more heavily striated on the back, while the disparity in size was quite extraordinary. One of the females came to an untimely end: it fell down a sounding hole, used for testing the depth of water under the marsh, and was not discovered for some days after its disappearance. On the 28th August I saw the young





NEST AND EGGS OF GIANT WHYDAH (*Chera procne*).

eating spray millet. On the 10th September I brought them into the house. "Sakabulo," the old female and the young female are now in the possession of one of our members who has a magnificent aviary, and, I feel sure, will succeed in breeding from them again. If he does I hope he will carefully note two points which I have not been able to settle, namely, the colour of the palate of the young and whether the male assists in rearing the young.

I have kept the young male for purposes of observation. On the 6th Oct. I examined it and found that it was already black on the inside of the wings and had some yellow feathers on the wing-butts: some scapulars were just coming down. It is now (27th Nov.) moulting a new tail.

On 10th Sept. I found the adult hen sitting on two eggs in a new nest and one of quite a different type. It was just an open cup-shaped affair, loosely constructed of fine grass, not attached in any way to the rushes that supported it, but fairly well hidden under a swathe of coarse grass (see photo.). The eggs were dull greyish white, clouded with washy blue-grey and faint purplish maculations, especially around the larger end; dimensions .89 × .62. It is evident, therefore, that this species constructs at least three different types of nest.

This paper has already attained much greater length than originally intended, but it would perhaps not be complete without a few general remarks on breeding the *Viduinæ*. This family has generally been considered by aviculturists to be difficult to breed, but I must say that various considerations have led me to an exactly opposite conclusion. In the first place, it will be noted that my young Whydahs, though they had everything against them in the matter of weather, developed into strong, hardy birds, as large as their parents. In the second place, one of our members has this season successfully reared young from both the Pintailed and the Red-collared Whydah, and, inasmuch as the first indication that breeding was going on was the actual appearance of the young, it is evident that the parents received no assistance from their owner. Thirdly, Herr Karl Neunzig has very kindly informed me that no less than five species of Whydahs have been bred by German aviculturists, namely:

1. *S. paradisea*.
2. *H. ultramarina*.
3. *C. albonotatus*.
4. *U. axillaris*.
5. *T. regia* (bred by a German residing in Sydney).

Certainly the Paradise Whydah and the Combassou do not, as a rule, seem inclined to go to nest, but I am not aware that anyone in this country has made a serious attempt to breed them. I at all events have never given either species a fair trial, and yet I had a nest of *S. paradisea* in 1907, and young are said to have been hatched in another aviary. I have not yet heard of complete success in the case of the Combassou, but I have particulars of a very curious Hybrid, bred by an Exeter fancier, between the Combassou and the Black-headed Mannikin. I think the above data will show that a considerable amount of success has already been obtained with the *Viduinæ*, and, if only an effort were made to get some females of the rarer species imported, I expect that in a few years' time medals will have been awarded for most of the remaining members of the group.

DARTFORD WARBLERS.

By HENRY SCHERREN.

Most of us have, no doubt, already entered in the margin of our favourite book on British Birds the fact that last year the Dartford Warbler (*Sylvia undata*) was successfully kept by Mr. John Frostick, who recounted his experience in *Canary and Cage Bird Life* of Oct. 1, 1909. Later in the same month I dealt with the subject in that journal.

The story of the species in captivity can be carried a little further than was done by Mr. Allen Silver in our November number, where he described Mr. Frostick's birds in an admirable way. Having also had the opportunity of seeing them, I can corroborate his account in all particulars.

My purpose is to supplement his excellent article by enumerating the few references to this species as a cage-bird that I have been able to find, and to bridge as far as possible the

interval between the historic birds of Montagu and those of Mr. Frostick.

We are able to fix the date at which Montagu kept his birds by his communication to the Linnean Society in 1807 (*Trans. Linn. Soc.*, ix. 191). In the paper he referred to them as having been taken "last year"—that is, in 1806, so that there is an interval of 103 years to bridge over.

I may as well confess at once that to do this is beyond my power. It will, however, be possible to fill in a little at both ends, and supply a kind of platform in the middle, whence other workers may carry on investigations either forward or backward.

This Warbler was not mentioned by Patrick Syme, whose "Treatise on British Song Birds" was published in 1823; but there is a reference to it in Sweet's "British Warblers," which appeared in the same year. This passage was quoted by Mr. Allen Silver (p. 30), and need not be repeated.

Next in order of time came Rennie's edition of Montagu's "Ornithological Dictionary" (1831). It is there stated (p. 131) that Mr. Bennet—[this should be Bennett]—Vice-Secretary of the Zoological Society, had recently a pair of nestling Dartford Warblers from Wimbledon Common. Now Bennett held office from 1831 to 1833. If he were already Vice-Secretary when he had the nestlings—and this appears to be so—he must have had them in 1831; so that we find Dartford Warblers kept as cage birds just a quarter of a century after Montagu kept his.

In 1833 Rennie founded a magazine, *The Field Naturalist*, which had a very short existence. Only four numbers of the second volume were issued when it came to an abrupt end. Among the contributors was Edward Blyth, the well-known ornithologist, afterwards of the Calcutta Museum. On p. 317 of the volume for 1833 Blyth mentioned six or seven Furze Warblers, as these birds were then often called, in the possession of Bennett, and referred to one having been limed while eating fruit in a garden.

At that time they do not appear to have been rare as cage-birds, for Blyth added: "The manners of the Furze Warbler in confinement much resemble those of the Babillard [the Lesser Whitethroat]; it often darts about in the same active manner as

that bird, and has the same remarkable habit of throwing back the head."

We must now pass over fifteen or twenty years. I have been informed by my friend Mr. Frederick Burton, the well-known naturalist of Wardour Street, that from 1848 to 1855 his father, the late Mr. H. Burton, used to get eggs from Hampstead, Highgate, and Finchley, and "sell them to the dealers by the dozen." Of course this was before the days of bird protection.

On one point of importance my friend is positive. His father used also to get the live birds, which were disposed of through the same channels. Now the inference I draw from these facts is, that the Dartford Warbler about the middle of last century was in the trade as a cage-bird.

This middle point is what I referred to as the platform, whence one could work backward or forward—to Bennett's birds in one direction, and to those of Miss Florence Burn in the other. Before passing to these last mentioned, a word may be said about the well-known Smithers, of Churt, who must have taken hundreds of eggs in his time—in the sixties and seventies of the last century. Viewing his work in connection with the evidence afforded by Mr. Frederick Burton I find it hard to believe that Smithers did not also take live birds, and draw the same conclusion as in the former case.

Now we come to quite recent times. In *Canary and Cage Bird Life* of Oct. 15, 1909, Miss Florence Burn claimed to have kept Dartford Warblers, hand-reared by her, from June 1905 to August 1906. In the number for Oct. 29, she explained that the dates were given in error, and should have been 1895 and 1896 respectively. Her story was completely confirmed by a letter from Mr. W. Thomson, published in the same journal on Nov. 5.

I have heard of one example that was sent last season to a prominent aviculturist, who may if he likes contribute some particulars. It is not my province to do so, nor did I make enquiries as to details, being satisfied generally as to the truth of the statement.

To recapitulate. Starting from Montagu's birds in 1806, we have those of Bennett in 1831 and 1833; evidence of live birds being taken between 1848 and 1855; presumptive evidence

of their being taken in the sixties and the seventies ; Miss Burn's birds in 1895, and Mr. Frostick's and another example in 1909.

There is one point of special interest in Mr. Frostick's article in *Canary and Cage Bird Life*—the occurrence of the nest in heather, and to him, I believe, is due the credit of being the first to publish this observation. It was, however, already known to Mr. Edward Hart, of the Museum, Christchurch, who contributed a note on the subject to the *Field* of Oct. 23, 1909. The choice of such a site by the species on the Continent is recorded by Saunders and Seeborn.

ON TWO CURIOUS AUSTRALIAN SPECIES OF ANATIDÆ.

By FRANK FINN.

The two birds which I wish to direct attention in these notes are the Magpie Goose of Australia (*Anseranas melanoleucus*) and the Musk-duck of the same country (*Biziura lobata*), of which the former is still on view at the Zoological Gardens, while the latter was until recently.

The Magpie Goose is remarkable for its peculiar form, which is much more like that of a heavily-built Ibis than any anatine bird, and the resemblance is strengthened by the fact that its front toes are only webbed at the base, and that the hind-toe, unlike what occurs in other *Anatidæ*, is well-developed and rests on the ground throughout. Accordingly we find that this bird perches more readily than any other member of the family, its grip being more secure by reason of this development of the hind-toe ; at the same time, according to all Australian accounts, it seems to nest on the ground, contrary to what obtains with almost all other *Anatidæ* of a perching habit. No information about the appearance and habits of the newly-hatched young appears to be available, for no one seems to have sufficiently appreciated the peculiarities of this strange bird to have tried breeding it, although some time ago quite a number were on sale at Mr. Hamlyn's establishment.

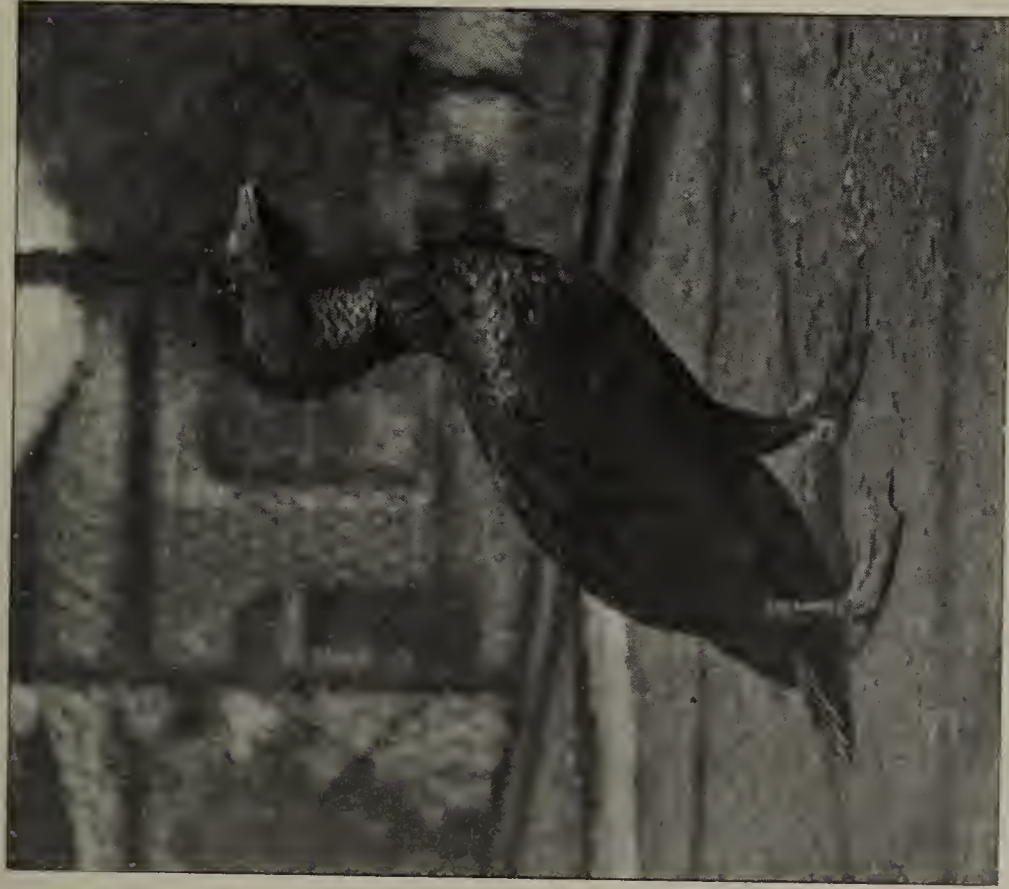
Our member, Mr. Blaauw, however, has long ago recorded the very interesting fact that, according to his experience, the

Magpie Goose does not moult all its quills simultaneously as all other *Anatidæ* appear to do, but gradually, like most birds, thus always retaining the power of flight. My observations on the bird, which has been for some years in the London Zoological Gardens quite bear this out; in fact, it moults so gradually that the process is not at all noticeable.

As far as I have seen, the species very seldom swims, but it is not so reluctant to enter the water as the *Cereopsis* Goose (*Cereopsis novæ-hollandiæ*), which I have only seen twice in the water during the many years I have watched waterfowl at the Zoo, and then, on both occasions, the bird was washing.

The Magpie Goose when swimming, sits high in the water like a gull; on land it walks with the slouch of a big wader, not the waddle of a goose. When washing, it prefers not to go into the water, but crouches at the margin of its little pond and throws the water over itself. The operation always makes its plumage wet—another striking difference from *Anatidæ* generally. Its note is an insignificant cackle, not at all what one would expect from a bird with a long windpipe which is carried under the skin all along one side of the body, and then returns to enter the chest again. This structure is only found in the male, but I have never been able to detect how the voice of the two sexes differs, if indeed it does so, as one would expect. Although the sifting-apparatus of the bill is little developed, this bird “bibbles” like an ordinary duck.

The Musk-duck differs from the normal ducks in a less remarkable way than the Magpie Goose; while the latter seems to represent a semi-wader—the sort of bird one would expect the ancestor of all *Anatidæ* to have been—the Musk-duck shows an exaggeration of the specialized diving-duck type. The feet are very large, and the tail long and wiry, while the wings are perhaps the smallest found in any flying bird. In point of fact there has been quite a controversy in Australia as to whether Musk-ducks could fly at all, since evidence was produced showing that these birds were sometimes captured by hand when making their way on foot from one watery haunt to another, and that under such circumstances they positively refused to fly. Ultimately it turned out that they did their flying at night, like our dabchick.



Photos copyright.

M U S K - D U C K
Biziura lobata.



L. Medland.

MAGPIE-GOOSE.
Anseranas melanoleucus.

That the bird should attempt an overland passage on foot is, however, sufficiently remarkable; its gait is very awkward, and it seldom goes far at a time, often lying down to rest; at least such was my experience of the specimen which recently died at the Zoo: I have even seen this bird throw itself forward in a prone position by a succession of jerks, as divers so often do. In the ordinary way, however, the bird keeps the body semi-erect when walking or standing, like a Cormorant, as is well shown in Mr. Medland's photograph—this, by the way, was not taken from the female specimen lately in the Zoological Gardens, but from a male which was there years ago, a specimen I never saw in life.

Being a full-grown male it displayed the curious wattle on the chin in high development. In the female, this is so small that I never saw it while the bird was alive, though on two occasions she came up and took my finger in her bill. On examining her freshly-made skin, however, I noticed it as a little low ridge of skin growing from the centre of the bare area between the branches of the lower jaw. In the male this wattle forms a pouch, with an orifice under the tongue; it would be interesting to note if this is ever dilated, as the wattle of the Cape Crowned Crane (*Balearica chrysopelargus*) is when that bird is calling.

The female Musk-duck at the Zoo led a solitary and apparently not very happy life; placed in the big flight aviary opposite the Eastern Aviary, she was ignored by the other ducks and worried by some of the waders. Now and then she took to the water, swimming low, with the tail usually floating on the surface, but at times raised above it like an ordinary duck's. She lay about a good deal, and apparently subsisted on meat, as the keeper told me she ate this, and I never saw her partake of grain, grass or biscuit. On one or two occasions I saw her flutter along the water in an attempt to fly, but she only succeeded in driving herself ashore; possibly this species is, as Grebes appear to be, incapable of rising directly into the air. I may mention that she moulted all her quills at once, in the normal manner of the family.

REVIEWS, EXTRACTS, NOTICES, ETC.

DR. GALLOWAY ON CANARY BREEDING.

Canaries are, by our rules, outside the scope of this Magazine, but I take it this only applies to their culture as fancy birds, and that any scientific results obtained from them are at least worthy of notice. I therefore make no apology for reprinting the notice which has been sent of the paper mentioned below.

CANARY BREEDING.

From *Biometrika* Vol. VII., Nos. 1 and 2. July and October, 1909. Five plates (4 coloured), pp. 42. Price 5/- net. CAMBRIDGE UNIVERSITY PRESS, London and Edinburgh. 1909.

In this paper Dr. A. Rudolf Galloway gives an analysis of the results he has obtained in 17 years breeding of a great variety of types of canaries. He considers that diversity of type has arisen from crosses between cinnamon sports and the wild green bird, and illustrates this theory from his knowledge of cinnamons and incomplete albinos in other forms of bird life. He criticises the recent memoir of Davenport, and indicates the necessity for a more exact use of fancier's terms. The extent to which inheritance in canaries does or does not accord with Mendelian theories is discussed at length. The paper is illustrated by four colour plates and a number of engravings which it is hoped will assist in giving definite value to the terms employed. The paper is, probably, the most extensive study of canary inheritance published up to date.

AMERICAN AVICULTURE.

Some recent numbers of the New York Zoological Society Bulletin sent for review contain much interesting avicultural matter, among which may be especially mentioned a paper by our member, Mr. C. W. Beebe, Curator of Birds, on the American Vultures, of which the New York Zoological Park contains a very complete collection, including a specimen of the Californian Condor (*Rhinogryphus californionus*) now almost extinct. A useful list is also given of the wild birds so far bred in captivity in the Eastern United States, among which the most noteworthy is

the Bald Eagle (*Haliaetus leucocephalus*), a species which many years ago laid in our Gardens here. The account is worth giving in full:—"The breeding of the BALD EAGLE in captivity in the Buffalo Zoological Gardens is, I believe, the first and only record. Dr. F. A. Crandall, Jr., has kindly furnished the following data. . . . 'The mother bird was caught in Georgian Bay, Canada, in 1898. The father was brought from Alaska in 1903. Both birds were between two and three years old when received.

" 'The female has had three mates, the first for two seasons and one each for the last two years. She has laid four clutches of eggs, the first two of which were not fertile. The eggs laid when paired with the second male proved good, and they were within one day of hatching when accidentally destroyed by freezing.

" 'The last mate she chose was the Alaskan bird above described. Two eggs were laid, and on the third day incubation began. They hatched just thirty-one days later on April 18th, 1909. The young eagles left the nest when sixty-five days old and were then in general appearance larger than the father.' "

Other out-of-the-way birds that have been bred are the Globose Curassow (*Crax globicera*), Demoiselle Crane (*Anthropoides virgo*), White Ibis (*Guara alba*), Black-crowned Night Heron (*Nycticorax nycticorax naevius*), Florida Cormorant (*Phalacrocorax dilophus*), Curacao Mocking-bird (*Mimus gilvus rostratus*), Catbird (*Galeoscoptes carolinensis*), and White-breasted Nuthatch (*Sitta carolinensis*). A very complimentary notice is given of our journal: "The best advice to any one who is contemplating keeping an aviary of living birds is to subscribe to the AVICULTURAL MAGAZINE."

NESTS AND EGGS OF AUSTRALIAN BIRDS.

The splendid work on this subject published by the Australian Museum, now entirely re-written, with additions, by Mr. North, C.M.Z.S., is replete with information of the most interesting kind, and well-illustrated with useful line figures of the birds, photographs of nests, and plate of eggs. The work is issued in parts, and that to hand is Part III, of Vol. II, containing accounts of the various Finches, Swallows, Wood-Swallows, Starlings, Pipits, Larks, Pittas, Lyre-birds, Nightjars, More-porks,

Rollers, Kingfishers and Bee-eaters. It thus contains a large amount of matter dealing especially with groups of particular interest to the aviculturist, and I strongly recommend it as a most attractive work, dealing not only with nesting habits, but also with other details in the life history of the birds concerned. Particularly interesting is the account of the importation of a Lyre-bird (*Menura superba*) to Europe, though this is not its first appearance there, as supposed by the author, the species having been more than once on view at the London Zoological Gardens. It is given below in full:—

“From information and notes received from M. Leon Jaubert, of North Sydney, I have extracted the following:—“Hearing from Mr. E. P. Ramsay, Curator of the Australian Museum, Sydney, that a Mr. Rose, farmer of Webb’s Creek, near Wiseman’s Ferry, on the Hawkesbury River, had a pair of tame Lyre-birds, I went up there on a shooting expedition, and called at his place to see them. I found them running with the fowls and perfectly tame. Mr. Rose informed me that he had several times taken young birds from the nests, and after rearing them and letting them have the run of the bush with the fowls, they all had mated with wild birds and forsook the place. The pair of birds then in his possession had been hatched from eggs taken from the nests at the same time, and placed under a domestic fowl, but he did not inform me of the length of period of incubation. These birds were exceedingly tame, and would take curds out of the mouth of the farmer, or his daughter, or eat anything out of their hands. Finally I purchased the birds, and stayed there four days shooting in and about the neighbourhood, and then returned to Sydney with them. As I intended shortly leaving with the Lyre Birds for France, I put an advertisement in the *Sydney Morning Herald*, offering to purchase twenty thousand live worms. These I succeeded in obtaining, and placed about an equal number of each in twenty casks of good soil, and also purchased one hundred-weight of curds, which was placed in the cooling chamber. On the 21st of April, 1885, I took the French steamer ‘Sydney,’ and Captain Pellegrin, the commander, gave me all possible help to succeed in my attempt to take the birds alive to France. I fed the birds regularly every day on about

two pounds of curds, for this they would fly up on to my shoulders, and take it out of my mouth, and placed half a barrel of fresh soil in their cage, from which they extracted the worms as they required them. At that time the French steamers called at Mauritius, Bourbon and the Seychelles, on their way to my birthplace, Marseilles. Just at day-break on the morning prior to our arrival at the latter place, the female died from the effects of the great heat while passing through the Red Sea. The male bird was landed in splendid condition, and remained for about a month at the Acclimatization Society Gardens at Marseilles. I then made arrangements with M. Milne Edwards, Director of the Jardin des Plantes in Paris, presenting the bird to that institution, where it was placed in a very large aviary. I gave full instructions to the keeper there how to feed it and look after it, and it thrived well, living for a period of five and a half years, and where I saw it several times during my different trips to Europe."

Of even greater interest to the average aviculturist is the following note on the house-haunting habits of the lovely Australian Crimson Finch:—

"Mr. G. A. Keartland writes me as follows:—I saw many nests of *Neochmia phaeton* near the junction of the Fitzroy and Margaret Rivers, North-western Australia. They were all made of very coarse grass strippings, some of which were so large that the birds could scarcely carry them, but the interior was lined with softer material. At all the habitations along the Fitzroy River, these birds make their appearance just before the heavy rains of January, and commence building at once, but as soon as the young broods are reared they all clear out again. The Crimson Finch seems to delight in the company of man, and although I found over thirty nests, they were all attached to dwelling houses, under the eaves or on the rafters of the verandahs. At the Police Camp eleven nests could be seen, two of them being within twelve inches of each other. At Mr. Blyth's camp several nests were under the eaves of the bough shade, and the birds hopped about the floor within three or four feet of those sitting at the breakfast table. Although some birds were taken from the nests and handled, they soon returned to their eggs when

liberated. At Mr. E. J. Harris's store-room many nests were seen on the wall-plates, and in one instance a pair of birds entered at one of the corrugations of the roofing iron, flew across the room, and built their nest in a coil of telegraph wire hanging on the wall. I never saw a nest of this species in a bush or tree." Other observers, however, find it in trees as well, but its nesting-habits are evidently quite House-Sparrow-like.

A very interesting observation is that the Laughing Jack-ass (*Dacelo gigas*) is more subject to albinism than any other Australian bird, and a detailed account is given of a semi-albino female which lived for some years (to the great credit of Mr. F. J. Parks, its protector), and was at last accidentally killed by eating strychnine-poisoned mice.

Another very interesting note concerns the Red-backed Kingfisher, a bird very similar to the Sacred Kingfisher familiar to visitors at the Zoo :—"The late Mr. K. H. Bennett sent me the following interesting notes :—Under the verandah of the homestead on Yandembah Station, near Booligal, New South Wales, a number of Fairy Martins' (*Lagenoplastes ariel*) nests were clustered together. One day I observed a pair of the Red-backed Kingfisher (*Todirhamphus pyrrophygius*) perched on one of the rustic branches attached to a verandah post. Curious to know what was the object of the Kingfishers in coming to such an unusual place, I watched them and had not long to wait to ascertain the cause of their visit. The eggs and young birds contained in the Fairy Martins' nests were the attraction, and I was exceedingly interested in the manner in which the birds extracted them. One of the Kingfishers would fly up to a nest, and, clinging to its rough sides, break off with its bill the neck of the structure, piece by piece. When tired with the exertion, the other would then take its place, and so on until the whole of the neck was broken away, and the eggs or young birds were reached, which were quickly withdrawn and devoured. This was continued for some weeks, the Kingfishers coming every day for their meal."

It is indeed difficult to leave off quoting from this fascinating work, the most interesting of its kind that has been published since Hume's "Nests and Eggs of Indian Birds," and if the subsequent numbers prove anything like the present it will be quite unrivalled.

F. F.

CORRESPONDENCE, NOTES, ETC.

AN ESCAPED FLAMINGO.

The stock of Flamingoes inhabiting the Three Island Pond at the Zoological Gardens, were never in more perfect condition than they are at the present time; the six European specimens showing the beautiful pink tinge on the plumage that is usually associated only with perfectly wild specimens, and the solitary American bird being practically identical with those so wonderfully depicted in Mr. Frank Chapman's most delightful *Camps and Cruises*.

The "Authorities" having decided that it would be a pity to disfigure these lovely birds by pinioning, they have been allowed to grow full wings, and at this time of the year, with their newly grown flight feathers, they seem often to be contemplating a flight.

A Flamingo is not able to rise straight up from the ground, but like an aeroplane, must take a run with expanded pinions and gradually rise into the air. For this reason there is not really so very much danger of their departing; but they are not entirely unable to take flight, as the following will show.

On November 17th the water in the pond was drawn off for cleaning and a gang of navvies appeared with brooms and shovels. This rather scared the Flamingoes and one managed to clear the boundary fence, circled round two or three times in the air and then throwing out its long neck forward and its long legs aft, headed straight away to the south and vanished out of sight. Nothing more was heard of it that day, but on the following morning a report was brought in that the bird was walking in Regent's Park. I at once summoned four keepers, and arming myself with a long net set out in search of the truant. We soon discovered it walking in stately fashion on the grass.

As we approached it became uneasy and hastened its steps, and before we had approached forty yards it extended its wings and commenced to run. With slowly flapping pinions it soon got under way and gradually rose from the ground, a wonderful object in the bright morning sunshine, its jet black pinions contrasting beautifully with its pink plumage. With neck and legs in a straight line it sailed away towards the lake and soon became a mere speck in the distance. We saw it wheel to the left over the lake and vanish from sight in the distant mist. We made in the direction in which the bird had disappeared but did not have to go very far, for again our bird appeared heading directly for us and gradually approaching the ground; down it came gently to earth and sank upon its breast with expanded wings, exhausted.

We picked it up without the aid of the net before it could recover,

none the worse for its flight. We had had a beautiful exhibition of the flight of this majestic bird under the most advantageous conditions.

November 20th, 1909.

D. S.-S.

THE FEEDING OF SLENDER-BILLS.

At the risk of re-discovering America, I would extol the merits of curd-cheese. For a year past I have proved it a light and nourishing diet for all species of insect-eaters. From the smallest Warblers to Nightingales, Rock Thrushes and the hardier Thrush tribe, without exception all eat it readily, even at first sight, and thrive on it. My birds prefer it to everything, except live insects. It is easily made, keeps fresh a couple of days, but seems no less wholesome for being sour, and, chopped fine, mixes well with ant's eggs and other foods.

Perhaps it is because I number few skilful bird-keepers among my acquaintances, but it seems to me this preparation is too little known and used.

I make mine by stirring a saltspoonful of tartaric acid, in powder, into a quart of boiled milk half-cool. Sometimes the composition of the milk makes more tartaric necessary, and the cheese can be hardened or toughened at will by boiling the milk more than once, and by adding more acid and pressing the curds.

A useful supplementary food, which keeps sweet indefinitely and is liked by many insect-eaters, is coarse maize-meal (polenta), made crumbly with olive oil. In Italy it is the standard food for Robins and the Thrushes. I find Woodpeckers and Wrynecks like it, and in aviaries some of the Finches will eat it for a change. It is inexpensive, too.

Silkworm cocoons have the same advantage and keep for a long time, and are recommended by some amateurs. But I do not find the more delicate birds like them—they are fatty,—although a small quantity powdered, mixed with other food, will pass muster and help to vary the diet. Choughs and Rails relish them, given whole.

Can any of our members report on their use with Waders? And can any report on the qualities of chafers or Maybugs, baked, powdered and bottled for winter use?

My experience is that no kind of insects suit caged birds so well, in the long run, as the orthoptera. Rock-thrushes sing well on nothing else than thirty or forty small grasshoppers a day, and so will Nightingales, on rather less. My Solitary Thrushes, and even Indian Shamias, will kill a full-sized locust, and eat it at a meal, but will not attack a second that day. Scops Owls are well suited with a diet of cockroaches.

G. A. MOMBER.

BLACK-CHEEKED LOVE-BIRDS.

SIR,—I thought the following notes on the breeding of Black-cheeked Love-birds might interest your readers; as, though Mr. Reginald Phillipps has written at great length on the same subject in Vols. VI. and VII., he does not seem to have noted the *exact* dates on which the eggs were laid, and the young hatched, etc.

As I found my Black-cheeks seemed likely to go on breeding for ever, after I had got all the young ones I wanted, I determined to take careful notes of the next nests. Most writers say they are shy sitters. I can only say that mine are *not*: for I not only was able to examine the two nests almost daily, but I frequently took them down and opened them to show the eggs or young to friends. The nests are all long boxes about 12 to 14 ins. long, 6 ins. deep and 6 ins. high, with a round hole at the side near one end. They are hung on a nail to the wall in the inner part of the aviary, and the top opens like the lid of a box. The following are my notes.

Nest No. 1. 1st egg laid July 13th; 2nd, July 15th; 3rd on 17th; 4th on 20th; 5th on 22nd; 6th on 24th. The birds commenced to sit on July 22nd—after the 5th egg was laid. The first young one was hatched on August 8th, after seventeen days. Two young ones left the nest on Sept. 11th, and two others were murdered by their elder brothers and sisters in the nest. The other two eggs were clear.

Nest No. 2. 1st egg laid July 22nd; 2nd on 24th; 3rd on 25th; 4th on 27th; 5th on 30th. Birds commenced to sit July 25th. I was from home from August 10th to September 9th; but three young birds left the nest between September 12th and 17th.

Nest No. 3. 1st egg laid September 28th; 2nd September 30th; 3rd October 2nd; 4th on 3rd; and 5th on the 5th. Birds commenced to sit October 4th. Two young birds hatched October 20th; after sixteen days; one October 22nd, and one October 24th. I found them all dead in nest on November 9th, with their heads scalped.

The above notes seem to show that the birds commence to sit when they have almost completed their clutch of eggs: and that they sit for from sixteen to seventeen days.

In making their nest in the long boxes, they block up the end nearest the entrance with sticks, leaves, etc., allowing only a narrow passage at the top to crawl along, but leave a good-sized chamber at the other end for the nest. The condition of this chamber after three or four broods have been hatched would delight the heart of a Sanitary Inspector.

W. R. TEMPLE.

MOUTH DECORATION OF THE NESTLING QUAIL-FINCH.

We can all heartily congratulate Mr. Phillipps on having achieved another Avicultural success by rearing three young Quail-finches this summer [cf. *Avicultural Magazine* for November 1909].

I should like to supplement Mr. Phillipps's account by offering some remarks upon the mouth-decoration of the nestling.

I was not fortunate enough to rear any young this season, but I had an opportunity, denied to Mr. Phillipps, of handling a recently deceased nestling. My birds made a fairly compact nest of bents in a tussock of grass, much like a Willow Wren's nest, and lined it profusely with Sand Grouse feathers. Though very late in the season, and in miserable weather, one young bird was hatched on the 11th September, out of three eggs, and reared till it died on the 13th day. I believe it was killed by cold, through the parent being accidentally flushed off the nest in the night, probably by a branch of an over-hanging tree falling on the aviary roof.

The following notes were taken as soon as it was found the next morning.

The palate ornamented by six black dots and the tongue by two, while the tip of the latter was also black. Two small iridescent, opal-coloured, bead-like warts on each side of the upper, and one of greater size and brilliancy on each side of the lower mandible, the spaces between the warts being black.

The general colour of the gape bluish-white above and flesh-coloured beneath. The eyes only partly open.

Mr. Pycraft, to whom I sent the nestling in spirit, remarks in a letter upon the curious resemblance of these ornaments to those of the mouth of the nestling Gouldian Finch (Australian), which had also occurred to me.

W. H. ST. QUINTIN.

NATURALISATION OF AMERICAN ROBIN IN ENGLAND.

The accompanying extract from the *Daily Mail* of 13th December may not have been seen by all our Members, so I have asked the Editor to reproduce it.

It deals with the introduction of the American Robin into this country, an experiment which seems to have passed the experimental stage, and one which we hope will not be accompanied with the disadvantage of the introduction of our birds into Australia, and the Sparrow into America.

There would seem no reason why some of the larger Parrakeets, such as Rosellas, should not live through our winter, and nest successfully in this country; they would make a beautiful addition to our avi-fauna, but it would be probably a rather costly experiment.

W. H. WORKMAN, M.B.O.U.

"THE NEW ENGLISH BIRDS.

By W. BEACH THOMAS.

An experiment, an endeavour, dear to every English naturalist, has reached another stage of success. More than one account of earlier stages

has been given in the *Daily Mail*. It will be remembered that in the early part of last year a dozen American "Robins," or more properly Thrushes were brought over to England and kept in a large aviary in a country garden. When breeding time came they duly nested in the aviary, but congregation is not congenial with the family system; many of the clutches were broken, and none likely to be hatched. When this was discovered the eggs were taken out as they were laid and put into the nests of wild Thrushes and Blackbirds; some few pairs of "Robins" were enlarged. The success of both systems was such that the dozen Robins were multiplied eight-fold at the end of the summer.

So far, so good. The English summer, as breathed in the shine and shade of a beautiful garden, proved thoroughly sympathetic with the American birds. They fed and bred and flourished without disturbance from their neighbours or their surroundings.

Will they remain? The pleasing fact is now to be chronicled that up to December 10 they have remained. One migrating period, so far as it has any definite date, is over. Many Blackbirds and Thrushes have gone to France. Flocks of male birds have launched themselves from the shores of Kent southwards and eastwards. But the hundred 'Robins,' though many have wandered from their garden centre, have not congregated or flown away."

THE YOUNG PLUMAGE OF THE MALE PIED ROCK-THRUSH.

In September last Mr. R. Phillipps sent me the body of a young male Pied Rock-Thrush, (bred by him that month) and killed by its father on the 26th, with a request that I would describe it, which I thereupon attempted to do as hereunder:

General colour above mottled drab, the ground-colour of the feathers being earth-brown, with a blackish band just before tip, which is cream-colour. Bases of feathers on the head grey-blue, and of the back pure white, but these were only visible where feathers are missing or disturbed. Upper tail-coverts dull orange, with indistinct buff tips. Wings dark earth-brown, the coverts distinctly tipped with buff, which forms an edging to the greater and primary series. Quills tipped and edged with pale drab, the edging very narrow on the primaries.

Centre tail-feathers dark earth-brown, the others dull orange with a slight dark brown edging on the tip half of the outer web, this becoming quite broad and well-marked on the outer pair.

General colour below barred, the feathers having black bars just in advance of the tips, on a ground colour of mixed orange and dull cream-colour, the tips being always of the latter colour. Under wing-coverts pure orange. Under tail-coverts pale dull orange, with cream-coloured tips, vent pale buff, unspotted.

The blue on the head and orange on the breast have the appearance of coming in by a change of colour in the feathers without a moult, though I also found a few pin-feathers on the head.

Feet very dark horn-colour, beak dark horn, with bases of both jaws, especially lower, shading into orange.

The bird was in good condition, and in perfect plumage, except for a few feathers missing on head, nape and back, and could not have been distinguished from a wild one.

FRANK FINN.

WOOD-SWALLOW CASTING PELLETS.

SIR,—In your notes for July, re *Artamus fuscus*, you refer to your bird casting no pellets. I have a very fine example of *A. personatus* which casts pellets, pointed more or less at both ends, and nearly half an inch long.

ALLEN SILVER.

ERYTHRISM IN THE GREY PARROT (*Psittacus erithacus*).

Mr. Seth-Smith has recently handed me a most interesting letter from a lady who describes a very curious change of colour going on in her Grey Parrot, the breast and legs (presumably the thighs) of which are turning scarlet. She "has had it twenty-five years, and it began to get the scarlet feathers about six years ago; it is now (November, 1909) beginning to get them on its backs, under its wings, and also a few are coming on the top of its wings." It seems to me that this assumption of red in a bird already of a good age points to constitutional weakness, and à propos of this I may perhaps be permitted to quote what I wrote in my book "Pets and how to keep them" in 1907, respecting these "King" Grey Parrots, as the varieties showing abnormal red feathers are called: "the best specimen of the variety I ever saw, a bird which was really more red than grey, showed the plumage of a thin and sickly character, and I have since heard that it moulted out much greyer, thus showing the red feathering to have been a sign of constitutional disturbance."

FRANK FINN.

OBITUARY.

It is with sincere regret that ornithologists will have heard of the death, on Christmas day last, of Dr. R. Bowdler Sharpe, an Assistant Keeper of the British Museum, and long the acknowledged head of British Ornithologists—it would not be exaggerating to say that he was the premier ornithologist of the world. Although he had written an immense number of scientific papers and several monographs, and done much popular work besides, he will be best remembered by his connection with that magnificent publication, the British Museum Catalogue of Birds, nearly half the volumes of which were his work. Dr. Sharpe's kindly and genial manner and readiness to place his knowledge at the disposal of everyone who needed assistance, had rendered him widely popular, and no one in the ornithological world will be so much missed or so sincerely mourned. He was made an honorary member of this Society in 1902.

F. F.

NOTICES TO MEMBERS—(Continued from page ii. of cover).

NEW MEMBERS.

Mr. W. CECIL GUNN; The Red House, Bickley, Kent.

Dr. GRAHAM RENSHAW, M.B., M.R.C.S.; Bridge House, Sale, Manchester.

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Mr. W. SHORE BAILY; Boyens House, Westbury, Wilts.

Proposed by Miss ALDERSON.

Mrs. G. PEEL LELY; Woodlands, Beckenham, Kent.

Proposed by Mr. HOUSDEN.

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AVICULTURAL MAGAZINE.

Edited by FRANK FINN.



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BROWN-NECKED PARROT (*Pœocephalus fuscicollis*).

Avicultural Magazine,

BEING THE JOURNAL OF THE
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FEBRUARY, 1910.

THE BROWN-NECKED PARROT.

Pæocephalus fuscicollis.

By E. HOPKINSON, D.S.O., M.A., M.B., F.Z.S.

The subject of this article is one of the three Parrots found in the Gambia, the other two being *Pæocephalus senegalus* and *Palæornis docilis*. It is an extraordinarily ugly-looking bird on account of its huge, powerful beak and ungainly head, its heavy build and rather dull colouration, and except for its rarity, possesses few attractions as a cage-bird, as I have found most of those I have had very difficult to keep alive for any length of time, and this is especially the case with young birds taken from the nest. Even when odd ones do survive, they rarely or never assume any semblance of tameness, or get rid of the awful habit of screaming wildly when anyone goes near them. However, this bird has always interested me owing to the peculiarity that the young are actually more brightly coloured than the adults, and because I am still doubtful as to what species it really belongs to. The name at the head of this article is that by which it is known at the Zoo, but our birds differ in many respects from the descriptions of that species which I have read, particularly in the differences between the young and old. When I first saw these birds here I thought that they were the same as *P. levaillanti*, a few of which I saw in South Africa, but as soon as I got a specimen in my hands, I saw that our bird was quite different from the South African one; for one thing our bird's beak is half as big again, I should think, as that of Levaillant's Parrot. During the seven years I have been in the Gambia, I have had a good number of these birds

through my hands, both alive and dead, and have often watched the change from the red-headed stage of the youngster to that of the grey-headed, red-winged and -thighed adult, and am quite sure that all my red-headed birds were young ones, as practically all were brought me from the nest before they could fly.

The following notes taken from three birds I had alive in April, 1906, give the differences in their plumage at the different ages.

No. 1. A very old bird, which had been slightly winged by a shot the previous January, and which eventually went to the Zoo. Whole head (including forehead) neck and upper chest brown-grey; each feather with a darker centre; reddish tinge on chin. Back dusky green; scapulars, flights and tail, dull black, with a greenish tinge; rump, upper tail-coverts, breast, abdomen, thighs and under tail-coverts grass-green, brightest on the rump; under wing-coverts dark green merging into grey. Edge of wing (at angle) and ring round lower end of thigh orange-vermilion. Sexes apparently alike. The beak, which is very large and strong and looks out of all proportion to the size of the bird, is horn-coloured; the cere a paler shade of the same colour. Legs black; iris dark brown. Length 12 inches.

No. 2. A younger but nearly adult bird noosed on a groundnut heap. Like No. 1 with a grey head, but the green of the rump and under surface was not quite so bright and there was no sign of vermilion on the angle of the wing or thighs.

No. 3. A very young but fully feathered bird, with just a few tufts of down showing on back and breast; taken from the nest. The whole crown from forehead to nape bright brick-red (or rather a colour between brick-red and pink), with a pale wash of the same colour over the rest of the head, the ground colour of which is brownish grey as in the adult. This red persists for four or five months after the bird leaves the nest, and during that time gradually changes into the grey of the adult, though some signs of it last till the first moult. In other respects the plumage resembled that of No. 2.

In Rochebrune's "*Oiseaux de Senegambie*" there is a

coloured (rather crude) plate of *P. fuscicollis* (Reichenbach), which exactly represents our adult bird, but in the descriptions of the species I have seen the forehead and cheeks of the adult are described as red (certainly not the case in our bird) and there is no mention of the red heads in the young. In the Hand List of Birds of the British Museum two *Pæocephali* are given, whose range includes Senegambia (1) *P. senegalus*, the Senegal Parrot, which is very common here, and (2) *P. rubricapillus*. I have never seen any description of the latter, and wonder whether it is our bird or whether perhaps *P. rubricapillus* may have been named from a young specimen of the Gambian bird. Perhaps some readers may be able to help on this point of diagnosis.

These birds, whatever may be their proper scientific name, are well-known here as Bambara* Jobo (the Bambara Parrot), their Mandingo name, which they owe to the common belief that they come from the East, where the Bambara people live, and because of their strength and size, the Bambaras being a particularly tall and powerful race.

In the Gambia these Parrots appear to be confined to that part of the country between the mouth of the Vinntang Creek (about 30 miles from the sea) and the McCarthy Island District, some 150 miles up the river, and within these limits are especially common on the South Bank where the country is well-wooded and fringed with a very deep belt of Mangroves. They never seem to wander far away from the river or its creeks at any time, and even on our boundary, though in most places this is only seven miles from the river, one never sees them; nor have I ever come across a single individual in the Upper River, where there are no Mangroves (and therefore probably no attractions for the Bambaras) nor in the districts near Bathurst and the sea, where, although there are plenty of Mangroves, these are bushes rather than trees. In fact one may say that they confine themselves to that part of the country where the water is neither too salt nor too fresh, but sufficiently brackish to encourage a luxuriant growth of Mangroves. In the breeding season they are even more local, and are then hardly ever to be seen outside the Mangrove belt.

* The two last a's are short, to be pronounced as in the name Barbara. (E. H.)

During the winter months they go about in parties of six to twelve, visiting the farms and clearings to feed on the ground-nuts, which are dug up about November and left in heaps in the open to dry ; but every evening they are to be seen flying off in the direction of the river to roost in the trees which border it. They make their presence known far and wide as they fly over by their hoarse grating cries, and look when on the wing as if they were weighed down in front by their huge beaks and heads, though in spite of this apparent topheaviness their flight, accomplished with very rapid wing-beats, is fast and powerful. Their breeding season commences about March or April, and they make their nests in holes in the larger trees of the Mangrove belt, which is half forest, half swamp, an almost impenetrable growth, except by means of the small creeks which in places pierce it, and to which they keep themselves almost entirely during the hot months of the year. Occasionally an odd one or two may be met with in the open at this season, but never more, and these would only be a pair or so flying over from one Mangrove-bordered creek to another or perhaps merely taking a short flight to break the monotony of their household cares. One May I had to spend the night in a canoe in one of the creeks of the South Bank, owing to the stupidity of my boatmen, who kept taking the wrong turnings and eventually landed us with a rapidly falling tide in a *cul-de-sac*, thus converting what ought to have been an hour's journey into one of rather more than twelve hours ; that morning I shall always remember how I was awakened by the really deafening clamour with which a party of these Bambaras, waking up in the tree tops, greeted the first rays of the rising sun, or the zest with which a few moments later they came down to a shallow place and took their morning drinks and baths.

The sight of these Parrots, which from what I had seen of them in the dry season or in captivity, I had always regarded as morose and rather sluggish birds, playing in and round the water and darting about most actively among the branches or helping one another to preen and dry their plumage, was almost sufficient to make up for one of the most unpleasant nights I have spent—aground in a leaking canoe and rocking on a sunken

log, surrounded on all sides by black mud, blacker water and slippery Mangrove roots, with millions of mosquitoes and other flying things to plague or bite, while at intervals huge slimy beasts, half slug, half caterpillar, dropped from the boughs above. It is in such safe places that the Bambaras breed, and I should think that under such circumstances and in such naturally protective surroundings their infant mortality should be low. Their only enemies here (except for the very occasional small boy who would venture so far after their young) must be the Green Monkeys, and against them the old birds should have splendid weapons in their terrible beaks; once bitten by one of these a Monkey would be more than twice shy, for he would carry for the rest of his days in what was left of his hand and fingers a souvenir which would make him most chary of ever putting his fingers into holes again to look for Parrot eggs.

As cage-birds, as I said before, I can hardly recommend the Bambaras. I have had a good many at times, a few of which have got home, mostly to the Zoo, but they certainly do not do well in captivity. The young I have almost given up trying to keep, as I have never yet known survive any longer than eight months, an age too that was only reached by one of my birds, most of which died soon after being taken, or at any rate within six months. While hand fed they take readily what is given them, chiefly crushed and chewed groundnuts, with perhaps a little bread, biscuit or boiled rice, and as they get older and begin to feed themselves, will eat groundnuts freely, though nothing else; but they rarely seem to thrive. I think the reason must be that they are fed by their parents almost entirely on the seeds or fruit of the Mangroves among which they are born, and that for this we can supply no efficient substitute. The old birds thrive better, or at any rate last longer; one I had lived two years at least at the Zoo after it got there, and there is another there now (looking as well as a Bambara can look, when I last saw him) who must be more than eighteen months old by now. But even the old ones can hardly be said to do really well in captivity; there is certainly no trouble about getting them to feed when first caught, as they will begin to eat groundnuts within a few hours, and as long as these are fresh and full of oil, as we get them here,

they do well enough, but after about May, when the nuts begin to get dry, and especially later on in England, where the groundnuts obtainable are dried-up, wretched little things compared to the fresh article out here, they apparently get very little nourishment out of their food and gradually decline. If one could get them earlier on to some other suitable Parrot food, such as maize, sunflower, rice, bread or potato they would no doubt have a better chance, but most of those I have had would apparently rather go hungry than try a new diet; they would sit all day with an abundance of all sorts of good food round them waiting till their master relented and put in a handful on their favourite nuts, when down they came and gobbled for all they were worth. The two birds which survived longest certainly owed their survival to their having taken to other food as the supply of groundnuts decreased; the one at the Zoo would eat a little ordinary seed and sopped maize, while the last I took home would occasionally condescend to take a small piece of bread or potato, even before the groundnuts began to get old and unsatisfactory. I see I said at the beginning of this article that the Bambaras never got tame; however every rule has an exception, and I must not forget to mention one I saw in Bathurst some years ago, which was really steady and apparently reconciled to captivity, though I noticed that its owner never trusted his fingers within reach of his pet's beak, and that when changing the water tin in its cage, he was careful to keep the hand inside near the bird's tail end, while the other had (outside) engaged and interested its head.

In conclusion may I again hope that some of the Parrot-experts among our readers will be able to tell us to what species this bird really belongs, for if so the writer at least will be very grateful?

BRITISH BIRDS ON THE RIVIERA.

By Lieut.-Colonel G. A. MOMBER.

We will define the Riviera as the seaboard between Hyères and Genoa, with as much of the hinderland as owes a mild climate to the midland sea on the South, and a screen of hills on the North. These hills gradually become the Ligurian and Maritime Alps, with points of 5,000 and 6,000 feet, which carry snow half the year. The seaboard is densely populated, holdings run small, and every yard of suitable ground is tilled for flower cultivation; the remainder being either waste land or olive terraces and vineyards. The olive trees hold the hillsides to a height of some 1,500 feet; above that is the chestnut zone, and at 2,000 feet the pine zone begins, with hollies, heaths, junipers, and myrtles scattered about. Few pine forests are left now, for Italians and French alike recklessly consumed their woods, without planting others, and the present generation is reaping its heritage of treeless mountains, which, at their summit, are rocky deserts.

Southern France, and especially Italy, are naturally rich in birds. Three continents, in fact, the whole of the Old World, contribute desultory migrants; and numerous regular visitors also are assured by the fact that the high roads of avine migration in Europe lie across the Mediterranean, and that many of the migrants, to some extent, winter on its shores. But the Riviera is not the bird-lovers' paradise it should be, for merciless persecution by man thins the winged ranks to skeleton companies, and the survivors become difficult to observe. The excessively ornithophagous proclivities of the Southerner are a heavy setback to the advantages lavished by nature on his country. Everyone shoots, nothing is spared, and the daintiest songsters—Goldfinches. Siskins, Robins, Warblers—hang in bunches on the town markets.

In Italy, the protective laws are still embryonic, and seldom enforced; offenders are leniently dealt with and illegal practices prevail. In general, wholesale methods of bird-catching are prohibited in Liguria; it is in the provinces of Como and Piedmont that the gardens of death flourish, the terrible roccolo and passata. But the popular amusement of besetting with bird-

limed grasses the streams in dry weather is indulged in despite the law, and is singularly destructive and wasteful, for all the birds of the district get limed, and many are not even bagged, but flutter away to die a lingering death.

If proof were needed of the deep-rooted passion for bird-hunting of the Italians, it could be found in the fact that in U.S.A. the Audubon Societies find it necessary to disseminate leaflets among the Italian immigrants, printed in their tongue, exhorting them to respect the laws and customs of their new country, and to refrain from destroying that which is beautiful as well as profitable.

These habits are less surprising in a newly-united Kingdom such as Italy, still tinged with mediævalism and the traditions of many formerly separate small States, than in France. For France signed the International Convention of 1902, and thus is accredited with the perspicacity and æsthetic development which are inseparable from an intelligent and humane protection of natural objects. But, after giving itself the sound and sufficient laws of the Convention, as now in force in Germany, Switzerland, Austria and Hungary, and after appointing a day for these enactments to take effect, the French Chamber, by a large majority in November, 1906, passed an "indulgence decree," suspending *sine die* the application of the laws, and upholding the old order of things, which means an annual issue by prefects of departments of regulations relating to game and birds; many axes to grind; the road open to every abuse; and the old systematic war of extermination carried on indefinitely. It is a poignantly ridiculous condition of affairs, until one remembers the political corruption and favouritism that lie at its root, and the steady diminution of bird-life it causes. Then it becomes deplorable.

The following is a list of British birds the writer has personally observed, in the flesh, either at large or newly caught or killed at San Remo, during the last five winters:—

Accentor, Hedge	Hoopoe	Skylark
Bee-eater	Jay	Song Thrush
Blackbird	Kestrel	Sparrow, House
Blackcap	Kingfisher	„ Tree

Bunting, Cirl	Linnet	Starling
„ Ortolan	Martin	Stonechat
„ Yellow	Missel Thrush	Swallow
Buzzard, Common	Moorhen	Swift
Chiffchaff	Nightingale	Tit, Blue
Chough	Night Heron	„ Coal
Cormorant	Oriole, Golden	„ Great
Crossbill	Owl, Little	Turtle-dove
Crow	„ Long-eared	Wagtail, Grey
Cuckoo	„ Scops	„ Pied
Eagle (not identified)	Pipit, Tree	Wheatear
Finch, Bull	Quail	Wild-duck
„ Chaf	Raven	Woodpecker, Green
„ Gold	Redstart	„ Gt. Spotted
„ Green	Redwing	„ Lesser
„ Haw	Regulus, Gold-crested	Spotted
„ Mountain	Robin	Woodcock
„ Serin	Sandpiper	Wren
Gull (not identified)	Siskin	Wryneck

A collection of skins obtained at Bordighera some years ago, and now on view at the Library, further includes: Corn Bunting, Curlew, Eagle Owl, Little Bittern, Woodlark, Wood Sandpiper. The above by no means comprise all the British species found on the Riviera, for there is hardly a British land-bird which is not claimed to have occurred there; and nearly all the sea fowl, too, are included in a list of 343 varieties, published in a comprehensive handbook on Genoa, “*Descrizione di Genoa e del Genovesato*,” 1847. Although so old, this work seems reliable, and is now scarce.

Oddi, in his *Manual of Italian Ornithology*, credits Italy with 445 species and 28 subspecies, the latter including such local variations as Whitehead’s Nuthatch, the Cisalpine Sparrow, etc.

Noticeable is the absence of water and marsh birds from our index, due no doubt to there being no suitable feeding grounds for them, and no flat land of any kind; but though rarely seen, both waders and swimmers are to be heard flying over at night. Most of the species indicated are stationary; the number of individuals being increased in winter by immigrants from the North; but Cuckoo, Redstart, Hoopoe, Oriole, Pipit, Bee-eater, Wheatear, Turtle, and all the swallow tribe arrive in April.

It is somewhat remarkable that these migrants re-appear in Southern Europe very little, if any, earlier than in England; that they leave no later, although the weather conditions usually remain genial until Christmas; and that the nesting operations of the resident species are not more forward than with us. By way of exception, a pair of Stonechats, which had haunted a rough barren hillside near the sea all winter, nested there, and launched their fledgelings on April 9, 1908.

Whilst the Little Owl is stationary and is often rather noisy in its hollow tree at sundown all through the winter, Scops is a summer migrant. Scops is here the more nocturnal of the two, and sounds its monosyllabic whistle at short intervals throughout the warm nights.

Numerous Blackcaps, Goldfinches, Siskins, Grey Wagtails and Chiffchaffs winter on the Riviera; and Hawfinches, Chaffinches, Bramblings and Coal Tits descend from the hills to the coast in cold weather. Large numbers of Song Thrushes, and with them some Redwings and occasionally Fieldfares, make the pine zone their habitat from late Autumn to April, and roost there at night, and spend a part of the day among the olive groves lower down. They are considered big game by the local gunners, and a lire 18 licence legalizes their being shot until as late as March 31. Redwings and Fieldfares do not nest in Italy, but it is now established that Song Thrushes do, exceptionally. Throughout Italy there is a brisk demand for all Thrushes, for culinary purposes, when they are retailed at 40 or 50 centimes each, and also as live decoys to attract their kind within reach of the pot-hunter's gun. Alive they make lire 2 and upwards, and thousands are illegally snared in fine nets, sometimes 200 metres long, and four or five metres broad. These nets are stretched across the narrow valleys, up which the birds skim in swift, low flight, on their return at sundown to the mountains.

Some Blackbirds are stationary on the Riviera. Their breeding grounds extend farther South than those of the Song Thrush; they nest throughout Italy, and the writer has found their brood in Tenerife in March. On the Riviera many of the British species hardly leave the cooler, moister climate of the hills, and are rarely seen by the coast; Gold Crest, Jay, Raven,

Missel-Thrush, Yellowhammer, Hedge Warbler. The latter is described by Oddi * as an Alpine species in Italy, as are also the Marsh-tit, Coal-tit, and Tree-creeper. The Italian name for the Creeper is Rampichino alpestre, the alpine climber; and Long-tailed Tit, Skylark, Bullfinch, Sparrow Hawk, and, in summer, Willow Wren are equally considered mountain dwellers.

In late April the summer migrants arrive, and often stay a few days before passing on. The coast is not quiet enough for most of these, and water and cover are too scarce to tempt them to remain and rest. But Nightingales will establish themselves in any leafy spot where they find water, and freedom from being molested; such as Grasse, a few miles inland of Cannes. Nightingales are more plentiful throughout Italy and Southern France, than in the damp North.

On the Riviera Wrynecks are very abundant, arriving in early April and remaining to breed. Quail begin to arrive in late April, and the shooting season is kept open until May 31st for them, for aquatic birds and "for birds of passage." Of course, this paves the way for much abuse, much indiscriminate slaughter, for it keeps the gunners afield, and if peradventure a sportsman is brought to book—a faint probability—he can claim any kind of fowl to be a bird of passage, which indeed it is.

Was it not Gätke who wrote that when the course of migration runs smooth, little of it is observable. It is the misfortunes, the bad chances, that we witness. The truth of this is well illustrated, when exhausted Quail, after crossing the Mediterranean, pitch on the first land they see. Then, during the month of May, the seaboard from Portugal to Constantinople is patrolled by innumerable Chasseurs, who render the roads parlous by their erratic fusillades. Gun accidents—sometimes fatal—are not infrequent along the Riviera, and the Ligurian's habit of carrying his loaded piece everywhere at full cock, makes it probable that more casualties occur than become generally known.

Robins arrive in force during October, but only a few remain after November has passed. During these two months a lire 6 licence permits the snaring them, and it is a popular

* Conte Dott. E. Arrigoni Degli Oddi. *Manuale di Ornitologia Italiana*, Milano, 1904.

pastime with boys, and even men, to carry about a decoy robin in a cage covered with limed twigs. The redbreast's well-known autumn pugnacity proves his undoing, and large numbers are taken and duly eaten with polenta. Wrens also are passage birds, during winter, and establish themselves in gardens and bushy places until the warm weather sets in, when they move back to their mountains. The Great Tit is stationary throughout the year, and finds good nesting sites in the hollow olive-trees; and has become so cautious and wary that it is less victimized than most other varieties. This Tit, the House Sparrow, and the Blackcap Warbler are perhaps the most abundant species, taking the seasons together, and the rich, joyous fluting of the latter makes the sunshine resonant, even on the shortest days.

Of the winter visitors, some years show a marked increase over others. Although there appear to exist no reliable notes taken over a long enough time to establish any theory of periodicity, the phenomenon is constantly being recorded in different countries; witness the invasion of the British Isles by Woodcock in 1908, and by Crossbills in 1909.

Near San Remo, during the winter 1903-4, there was a great incursion of Coal Tits. Caged Coal Tits were hanging outside all the houses, and the confiding little fellows were snared and eaten in large numbers. The old chasseurs prophesied a repetition of this in three years. But they were wrong, and few Coal Tits have been seen since. The British sub-species of this bird is recorded by Arrigoni D. Oddi as a winter visitor to Italy. This year (1909) Siskins are numerous; in 1905-6 more Goldfinches than usual appeared; other years again are marked by an influx of Cirl Buntings or Crossbills. A spell of cold in Feb. 1907, brought remarkable numbers of Mountain Finches. Everywhere they were hopping about the roads and gardens like Sparrows, and doing about the same amount of damage. A number of gunners, one cold day, posted themselves in line at a place on the hills which the birds were crossing, and kept up a brisk musketry for hours.

In the winter, 1908-9, Hawfinches were plentiful; also Linnets, which had not previously been observed for four or five years. The causes of such abnormalities in migration offer an

interesting problem, which should in time be solved by increased observation.

Some of our common Northern birds, which are erratic and which may or may not wander to Southern Europe during the winter, will also summer and nest there, if they can find the climate they require, coinciding with suitable surroundings. Of course, this is only possible at high altitudes. Hedge Accentor, Chough and Yellowhammer have been referred to as residents of the mountains of Liguria. In the fir woods that fringe the high broad valley above Thorene, 3,000 feet, in Provence, the writer saw, in June 1906, many immature Siskins which had recently left the nest and were undoubtedly bred there. These birds are not found in the low lands so far South during summer. On the high plateau of Mount Revard, 5,000 feet, in Savoy, in June 1908, Skylarks were soaring over the wide stretches of open grass land, and Song Thrushes were singing in some fir plantations. But neither species was seen or heard anywhere else, during some weeks of rambling in that region, where, indeed, they are looked upon as winter visitors. This observation was confirmed in June, 1909, and nestling Song Thrushes were seen, which had been taken on a neighbouring hill, near the Gde. Chartreuse monastery. The vertical migration ascribed to certain Alpine species, such as the Wall Creeper and Alpine Accentor, which move up or down their mountain in response to the changing season, would seem, therefore, to be practised by a greater number of varieties than is commonly supposed.

It is an interesting fact, in the bird lore of Southern Europe, that in certain localities many species have been observed only during the Spring migration, others are not seen but in Autumn. Of some species, the old birds are recorded in Spring, and only the immature young are seen in Autumn. This emphasizes Gätke's statement that the journey to the South takes a different route from the return to the North; that the points of arrival and the points of departure are not the same. It makes it clear, also, that different species, and even the different ages of one species may steer each their own course, and that this is not necessarily the same every journey.

Of the Riviera species not on the British list, those most

likely to be observed are : Blue or Solitary Thrush, Crag Martin, Wall Creeper, Meadow Bunting, Stone Hen, and the Occhio Cotto, *S. melanocephala*, a small warbler resembling the Sardinian Warbler or a dusky-hued Blackcap.

THE DECEPTIVE TURTLE-DOVE.

Turtur decipiens.

By T. H. NEWMAN.

As very little has appeared in the pages of our magazine about this highly interesting species of Collared Turtle Dove, I propose to give a few notes about my experiences of the bird, which date from November, 1905, when I received my first two specimens.

I do not know why Finsch and Hartlaub bestowed the name "Deceptive" on the bird; perchance they had heard the very curious note, and had been beguiled into the belief that they were confronted by some savage beast, instead of a "gentle" dove. Anyhow, the name seems appropriate, for if two male birds (I subsequently bred young from both) could not only make the bird-man of one of our principal members believe that they were a pair, but even imagine that they laid eggs; and if a hen could make one of the most experienced bird-keepers at the Zoo. believe that it was a cock, I think they must be considered deceptive by nature as well as name.

It is a very handsome bird, most nearly resembling the Half-collared Turtle (*T. semitorquatus*), but considerably smaller, a little larger perhaps than a common Barbary Dove. The Museum Catalogue gives a total length of 12.4 inches for *semitorquatus*, and 12 inches for *decipiens*; but an adult male of the former which I bred in 1906 measured about 13½ inches in the flesh, while two adult male *decipiens* measured respectively about 11½ inches and 12¼ inches, also measured in the flesh.

The typical bird is a warm brown on the upper surface; the breast is vinous changing into lead grey on the flanks; the under tail coverts are paler grey tipped with whitish, which is very characteristic of the species; centre of abdomen whitish; the vinous of the breast passes up along the anterior part of the

head to the nape, where it is very pronounced; the crown and cheeks ashy; chin and throat whitish; central tail-feathers greyish brown; basal half of under surface of tail black; apical half light grey; only a very narrow whitish line along the outer edge of the outermost tail-feathers; edges of wings grey; primaries blackish; a very broad black collar on the hind neck, edged above with ashy white; iris buffy orange, bare skin round the eye *grey* tinged with pink; inner edge of eyelids black; bill black; feet carmine. The above is taken from an adult male and female from Kordofan, and as I shall point out later on are doubtless referable to typical *decipiens*.

The species inhabits East Africa from Dongola to the Zambesi, and one form occurs in West Africa in Angola; as one would expect in such a wide range the species differs somewhat in tone of colour in different parts of its range. The typical race is found along the Nile, from Dongola to Kordofan. As this form is common on the White Nile, the specimen in the British Museum from the Sobat River, and called *ambiguus*, probably belongs to this form.

In 1905, Erlanger described the race from North Somali-land under the name of *griseiventris*, which differs principally by having the flanks and abdomen a deep grey. In 1877 Bocage gave the name *ambiguus* to a bird from Benguela in Angola, so that this must be the typical locality for this race. It is said to be of a somewhat yellow brown shade, and to have more grey on the under surface.

In 1905 Reichenow pointed out that the bird from Victoria Nyanza to the Zambesi which had hitherto been considered to belong to the form *ambiguus* was really distinguishable from it, and differed from it by being of a somewhat darker tone of brown on the upper surface, lighter grey on the sides of the body and under wing coverts, and the white on the abdomen more extended. The two birds from Tette in the British Museum, and there called *ambiguus*, without doubt belong to this form which Reichenow called *permistus*.

Lastly, there is *perspicillatus* from Nguru, at once recognised by having the flanks and under tail-coverts pure white; a specimen from Ugogo which lies between Nguru and the country

inhabited by *permistus* seems to be intermediate between these two forms as it is mentioned as having the under tail-feathers (coverts) washed with grey.

Habits. Witherby, writing of the typical form from the White Nile, which he, however, calls *ambiguus*, *Ibis*, 1901, pp. 266, 267, writes: "Exceedingly abundant, except within twenty miles of Khartum, where it became rarer. . . . In the south of our route they were so common and tame, and clustered so thickly on certain trees, that on several occasions we killed fourteen and sixteen at a "family" shot, while five or six was no unusual return for a single cartridge. All the pigeons we observed were great drinkers, and flock after flock used to rush down to the river regularly morning and evening. Returning from it in the evening they often rose to a great height, and circling round, suddenly plunged down headlong, like our wood-pigeons, into the trees used as roosting places. . . . On April 24th, near Shebesha, I found a bird of this species sitting on two incubated eggs, in a nest made of some twenty sticks, placed low down in a cactus plant growing upon a small acacia."

Rothschild and Wollaston, writing on the birds from Shendi, Sudan, *Ibis*, 1902, p. 25, say: "This dove was very much less numerous than the preceding species (*roseogriseus*) from which it was readily distinguished by its larger size. It becomes increasingly common as one goes southward from Shendi, which place seems to be about its most northernly limit. A nest containing two eggs was found in an Acacia bush on March 16th. The nest was a light structure of twigs. The eggs are of a pure white, without gloss, and measure 32.1 by 22.5, and 29.6 by 23 mm."

Again, A. L. Butler, on the "Ornithology of the Egyptian Soudan," *Ibis*, 1905, p. 359, writing of *T. decipiens* and *roseogriseus* says: "These are quite the commonest doves in the Soudan. *T. decipiens* however seems to keep more to the vicinity of rivers than *T. roseogriseus*. In Kordofan it seems to be entirely absent. I have taken eggs of *T. decipiens* on the White Nile in November."

Reichenow in his "*Die Vogel Afrikas*," Vol. I., p. 417, writing of the form *perspicillatus* says: "A few examples only noted between Kilmandscharo and Meruberg, in the district of Nguru they occurred in greater numbers. Here they nested by

hundreds in medium-sized Acacia trees, and resorted to the Durra fields. Their call is very remarkable 'Hu-triuu-tuhuhu-tuhuhu-tuhuhu,' moreover one hears a peculiarly loud note sounding like 'Krrrou.' It appears to have expelled all other Turtle Doves from Nguru. The white eggs measure 29.30 by 23 mm."

I first saw this species in May, 1905, in the aviary of one of our members, who very kindly allowed me to have them in the following November; there were two of them, they came to me for a pair, but subsequently turned out to be both males. It is not often that one is able to find out the exact locality from which one's birds come, but as these had been sent over privately, through the kindness of their former owner I was able to ascertain that they came from British Central Africa just north of Chiromo, and not far from the Zambesi, so that they must belong to the form *permistus*; they differ from the birds described above from Kordofan by being perhaps a trifle larger, also having all their colours brighter and darker, the back is a more ruddy brown, the cheeks are a shade darker grey, and the white on the chin and abdomen is purer; the most striking difference lay in the bare skin round the eye, which formed a broad *red* circle, otherwise the two races are identical in shape and distribution of their colours, also their notes were indistinguishable; they are most certainly only local forms of the same species.

On the 19th July, 1906, I got a female of true *decipiens*, and on May 10th, 1907, a second example, and on 16th Nov., 1908, a male. These three birds, together with three others, were brought back from the White Nile by the expedition sent by the Egyptian Government to get rare birds and beasts for the Giza Zoological Gardens, Cairo; they came from Kordofan and must be considered to be quite typical birds.

On the 31st July, 1906, one of my first male birds mated to one of the Kordofan females; four eggs were laid, resulting in as many young ones; none were, however, reared, the eldest surviving about one month; the old cock died on the 25th Sept., 1906. One of the Kordofan hens, perhaps the mate of the above cock, died on the 29th Dec., 1908. The Kordofan cock died on the 28th Dec., 1908, when I had only had him a little over a

month. This leaves me with one of my original male birds, and one of the Kordofan females. In June, 1906, the cock mated to a Barbary Dove hen; they were together until February, 1907; six young hybrids were fully reared—four cocks and two hens—very handsome birds taking strongly after their father. (I will remark in passing that these hybrids, both male and female, were perfectly fertile, young ones even being freely produced when they were mated together). From Feb. to June, 1907, the cock was mated to one of the Kordofan hens; six young were hatched, only two being reared by a pair of Turtle \times Barbary hybrid Doves. Both these, which were cocks, lived to be mated, one to a white hybrid hen dove; a young one was hatched from this pair, but as the cock died before it was hatched it only lived a few days. The other mated in May, 1908, to one of the Kordofan hens, with whom he remained until the following November; about a dozen eggs were laid, several of which were hatched, but no young were reared. This cock died on the 26th January, 1909, his mate having preceded him on the 29th December, 1908. In June, 1907, the old cock mated to one of his hybrid daughters, three young were reared, which could hardly be distinguished from pure-bred *decipiens*. The hybrid hen having died in January, 1908, her father again mated to a Kordofan hen in the following April. I am not certain if this was the same hen he was mated to in 1907 or the other; most probably he had gone back to his old mate. Between April and November about thirteen eggs were laid and twelve young ones hatched; most of these died when quite young, one lived to be over two months old, and one became adult and may be still living, I parted with it on Nov. 16th, 1908. This was the first young one entirely reared by its parents. During 1909 fourteen eggs were laid and nine young were hatched; two of these have been reared, but one was brought up entirely by the same pair of hybrids that reared the two in 1907, so that with all this large number of eggs laid, and young hatched, only six lived to be independent, and three of these are now dead: while only three—two in 1908 and one in 1909—were brought up by their parents. This species seems to be certainly not so robust as most of the Turtle Doves, but I attribute the death of so many young ones

entirely to the neglect of the parents, for of the two reared in 1909, although I gave the smaller and weaker young one of a pair to the hybrids to rear, this young one grew faster, and left the nest some days sooner than the one with its parents, and became a much stronger-looking bird.

My birds invariably nest on the top of a pile of brushwood in the inner house of the aviary, right in a corner. They often carry up so many small sticks as to make a thick mass of twigs several inches high, so that I have to take away most of them to prevent the eggs from rolling off the top. I have eight eggs before me, laid in 1907-9; they are small for the size of the bird, pure white, rather glossy and round, though three laid in 1908 are rather larger and longer in shape. The eggs generally hatch on the 13th, sometimes on the 14th day after the second egg is laid. The young on hatching are well covered with down, longest on the crop region; on the back of the neck, and back as far as the tail, including the wings, it is a deep buff, almost fawn colour; but is of a bright yellow on the under surface. Sides of the head, including eyelids and bill, dark lead grey, tip of bill pink with a dark purplish band, bare skin on chin and surrounding the ear reddish grey; feet pink, claws bright pink. I have a series of eight skins of young birds, ranging from under a fortnight to over two months old; the under surface and nape entirely lack the vinous of the adult; in the youngest specimens on the upper surface the feathers are very distinctly edged with light brown, the crown is brownish, not grey as in the adult. I note that the feathers of the collar are the last to appear, there being a bare patch on each side of the neck when the bird is otherwise well fledged, but when these do come they form a broad black band broken in the middle by brown feathers, the same colour as those above and below the collar.

The adult birds are of a cheerful disposition; the cock bird often gives several hops or bounds after his mate, then as he bows low to her he utters a coo more nearly resembling that of the Barbary Dove than any other species of Collared Turtle that I have heard. When in the nest calling the hen a loud *coo-hoo-hoo* is repeatedly given, the "*tuhuhu*" of Reichenow, this is not at all unlike one of the notes of *semitorquatus*, but most charac-

teristic of all and also most frequently used, is the curious loud note, which evidently corresponds to the laughing note of the Barbary Dove, being used on similar occasions, when alighting or when about to attack another bird, or even on the wing, this is the note which Reichenow renders "*krrrou*," and which Mr. Meade-Waldo has compared to the *mur-r-r* of the common Guillemot. If the bird was not seen it would be hard to imagine what was the author of the sound. It can be heard for a considerable distance and is used by both sexes.

Altogether I consider this to be a very handsome and interesting bird. I strongly advise any of our members to secure specimens if they get the chance; doubtless they would be more successful in rearing the young than I have been. My present stock consists of the old pair with their two 1909 young ones, and one half-bred male hybrid which has hatched a young one when mated to a $\frac{1}{2}$ *semitorquatus* \times $\frac{1}{4}$ *turtur* \times $\frac{1}{4}$ *risorius* hen.

NOTES ON TREE-PARTRIDGES.

By C. BARNBY SMITH.

I often wish that some expert member of the Avicultural Society would write an article on "Birds that take care of themselves," for I am sure there must be many members of the Society who, like myself, without assuming to have avicultural skill yet would be delighted to have such birds dotted about their gardens in suitable runs. By "Birds that take care of themselves" I mean for the most part birds that, if put in a run with larger and more important birds, will pick up the remnants of the other birds' food and prosper practically without any attention.

If such article is ever written I hope Tree-partridges (*Arboricola*) will not be forgotten, for although apparently not very commonly kept in confinement, they are amongst the most charming of small game birds and amongst the easiest to keep. Although many sorts of Tree-partridges are known, they differ but little in plumage, and only two sorts are usually imported namely, the Common Tree-partridge (*Arboricola torqueola*), and; the Black-throated Tree-partridge (*Arboricola atrigularis*).

The Common Tree-partridge is a most lively little fellow, almost as round as a cricket-ball, and with the tail pressed downwards and under the body as though the bird had been continually backed up against a wall. Both sexes are beautifully marked with brown on back barred with black and grey-chested. The cock, however, is easily distinguished by his black throat with white on neck below, whereas the hen has a rust-coloured and black throat. The white spots on the flanks of the hen are said to be larger than those on the cock, but in birds I have had for some two years past I have found the size of spots on the hens to vary greatly and even to change considerably in the same bird on moulting.

I usually keep my Common Tree-Partridges in the same enclosure as a pair of Tragopan Pheasants—a place with a few young Austrian pines, several low bushes and a shelter shed. The partridges invariably roost high up in the pines, spending their days scratching under the trees with the utmost vigour and only going under the shelter shed for a sand bath occasionally. They are easily tamed. I had doubts at first as to their hardiness, but found they would stand the severest cold (after being gradually acclimatized on arrival from India). As to food—at first I thought they might require insect food in addition to corn, and accordingly gave them cleaned maggots (such as are sold for “coarse fishermen,”) but, although the birds always devoured these with the utmost relish, I found they were quite unnecessary and that the birds do perfectly well on wheat and dari. This they pick up from amongst the Tragopans’ food, stealing out from under the bushes and getting what they want in a short space of time as soon as the food is put down. They also readily take barley meal, which I give to the Tragopans in winter. The Tree-Partridges are so quick in movement they can easily evade being pecked by the Tragopans should the latter happen to be bad-tempered, and when both lots of birds are feeding together it always elicits admiration from old ladies to see “the beautiful red speckled fowls and their dear little chicks.”

These Tree-Partridges give a peculiar whistle in the spring time, but are quite silent for the rest of the year. I have so far never got them to nest, but have noticed them feeding

one another with grains of corn. They are always in good feather and sprightly, and the one drawback to keeping them seems to be that their continual scratching makes their run untidy.

The Black-throated Tree-Partridge is in my opinion a less handsome bird and less interesting than *torqueola*, nor, according to my limited experience, is it so hardy—perhaps because in its native country it frequents lower elevations. It is stated to be “less distinctly arboricole in its habits,” which appears to be quite true, as I have watched one fairly closely for about a year and only seen it perch twice.

STRAY NOTES ON INDIAN BIRDS.

By FRANK FINN.

(Continued from page 256.)

WHITE-BELLIED PIGEON. *Columba leuconota*.

The call of this Rock-Pigeon, as I have heard it from captive birds, is not a coo, but a rapidly repeated croak, like a hiccough. Although an essentially Alpine species, it does not appear to feel the heat in Calcutta at all, and even shows signs of breeding. When courting it does not sweep the tail like the tame pigeon, though looking very like some of the continental breeds of this bird.

RED TURTLE-DOVE. *Oenopopelia tranquebarica*.

The eyelids of this dove are indifferently lead-coloured or pink in different individuals. Rutledge once gave me an albinoid male of this species, which much resembled in colour the cream-coloured collared Dove (*Turtur risorius*), but had a pale grey head.

COMMON PEA-FOWL. *Pavo cristatus*.

Wild young of this bird were often to be had in the Calcutta Market in my time. We also had in the Calcutta Zoo specimens of the Black-winged (the so-called *nigripennis*) and white varieties, imported from Europe. Our late Superintendent there, Sanyal, saw a black-winged male pair, without previous display or any fighting, with a hen white bird, whose white mate had just displayed to no purpose. The same Black-winged bird

had been seen by another observer to display to some Lascar sailors in blue and red. It killed another male of the same variety, and later on the white male; yet I have seen him and the white one both displaying to their respective hens at once. I have also seen the present London Zoo. specimen of this Black-winged variety displaying with several others and not disturbing them, though he is the master bird of the lot. In 1902 there were bred in the Zoo a pair of Peafowl from a common male and a *nigripennis* female; they both resembled the common kind. The immature male *nigripennis* when fully feathered has the bases of the blue neck-feathers white and the wings, except the chestnut primaries, white with strong black pencillings, very like that on the wings of the adult common Peacock, whereas in the young common bird at the same stage the pencilling is fine, so that the wing looks much more uniform and much like the hen's drab wing. The late Sir George King, formerly Superintendent of the Calcutta Botanical Gardens, told me he once saw a common Peacock they had there plucking out his own train feathers when moulting; surely this is unusual with any bird? I have seen a hen at the Zoo here showing off to a cock, which was quite indifferent.

JAVAN PEA-FOWL. *Pavo muticus*.

In India this bird is more delicate in captivity than the common Pea-fowl, and also more savage. I saw two birds in Calcutta, when desirous of attacking a Pheasant, spread out their tails (they had no trains), and one dropped its wings too, and raised its tail, assuming almost the show position. I have also seen one show off before a Crow, apparently in anger.

GREY JUNGLE-FOWL. *Gallus sonnerati*.

Blanford, quoting Jerdon, gives the legs and feet as horny yellowish; I have found them, both in India and here, salmon-red in the cock when in full vigour; in one at our Zoo which had shown this colour, in 1906, the legs become wax-yellow after death, as they had been when it first arrived in poor condition. Hen seem always to have dull yellow legs.

CHEER PHEASANT. *Catreus wallichii*.

This species is said not to show off, but a vicious male in Calcutta Zoo used to show off in the common Pheasant's attitude,

aslant with spread tail, when trying to attack, and as the show position so commonly seems to be the fighting one too, I expect the species does thus display when courting. This bird uttered a murmuring note when approached, like the Kaleege Pheasants (*Gennæus*).

MONAUL. *Lophophorus refulgens*.

Blanford says "The young resemble the female, except that young males have the throat more or less black, and generally are darker throughout." I found in some I got when I left India finally that the young cocks were just like hens, except for a plain buff patch on the back concealed by the wings, where the white patch is in the old cock. When frightened in the coop my old males raised and spread the tail in the courting position.

BUSTARD-QUAIL. *Turnix pugnax*.

I found that this small bird in captivity would eat even large butterflies.

LITTLE BUTTON-QUAIL. *Turnix dussumieri*.

I observed in otherwise similar specimens brought alive to the Calcutta market, that some had fleshy-white legs and some pale blue-grey, the bills being blue in both cases.

INDIAN BUTTON-QUAIL. *Turnix tanki*.

In April 1898, I saw a fine live specimen which had been captured the night before in a butterfly-net, as it flew round a street lamp. This was at Darjeeling, far higher up than it is supposed to range in the Himalayas.

(To be continued.)

REVIEW.

A HISTORY OF THE BIRDS OF KENT. By NORMAN F. TICEHURST, M.A., F.R.C.S., F.Z.S., M.B.O.U. *

In his preface Dr. Ticehurst tells us that when he first undertook the preparation of this work no history of the avifauna of Kent as a whole existed; but, although since that time two other works have appeared, he hopes the record of his own work for years past and that of many correspondents in all parts of the County justify the production of this presumably exhaustive

* WITHERBY & Co., 326, High Holborn. Price 21/-.

treatise: that his hope was founded upon a sound basis will, I think, be admitted by all interested in British birds, and especially by those who, like the present reviewer, have studied the bird-life of this country chiefly in Kent.

In a comprehensive work like Dr. Ticehurst's, which deals with the geographical position of the County, its geological features, its rivers, vegetation, avifauna and the migratory movements of the latter, their number, an account of the various museums and private collections in which they have been preserved and the authors who have described them, it was not considered necessary or advisable to burden the chapters by synonymic lists or technical descriptions of the species; such details are always to be secured by the reader from the Catalogue of Birds in the British Museum, as well as from several works dealing with the birds of Europe or the British Isles.

To the more strenuous students of bird-life the various species are familiar and their synonymy is of secondary importance; whereas their haunts, their habits, their food, their variations, the first discovery of their nests in the County, as also the time and probable direction of their migrations, are all matters of considerable interest; and it is just these facts which render Dr. Ticehurst's book of inestimable value.

But, apart from the faultless character of the text, the value of the book is greatly enhanced by the admirable illustrations of Kentish scenery which one keeps stumbling upon; these remind one of past pleasures and companions, of birds'-nesting and bird music. In the seventeen or more years during which the reviewer searched the woods, coppices, lanes, and marshy levels of Kent, the County became greatly endeared to him. Of the authors referred to in the present book one or two spring from the shadows of the past: one remembers the first French Partridge nest discovered in the Rainham Woods and how the companion of that day would not hear of the removal of an egg or two for one's collection, yet smashed the whole nestful because forsooth "these birds spoil sport, by running before the dogs." What barbarities have not been excused in the name of sport! A day out with Edw. Bartlett, then of the Maidstone Museum, is a much more pleasing memory, though I believe unproductive of spoil.

A book which not only instructs but revives the memory of summer pleasures is always delightful, and few books fulfil these conditions more perfectly than Dr. Ticehurst's: moreover, so far as accuracy and thoroughness are concerned his name is a sufficient guarantee.

A. G. B.

CORRESPONDENCE, NOTES, ETC.

THE SHAMA AS A PET.

After reading Mr. A. Denman's most interesting obituary article on poor "George" the Hangnest at the Zoo, of whom I had an affectionate remembrance I felt I must say a few words on Shama, as in so many ways those I have been fortunate enough to have as pets and friends, have been so like Mr. Denman's descriptions of the Hangnests, and I think really make even more charming companions than the latter on account of their lovely song. I think Shammas have, if anything, a more marked character than Hangnests, though I won't say a nicer one, but mine have all shown their likes and dislikes in such a determined manner, no one could be in any doubt as to what they wanted.

The Shama I have at present is called "Bobby." His intelligence is remarkable in so much that if in a good temper he will always sing to order.

As with "George" the Hangnest, he sits on the hand, or lies flat in it, and holding a piece of your finger in his beak, will sing his lovely song to you. But, and there are many "buts," if he dislikes the room he is brought into or the people are those he doesn't like, nothing will make him sing a note, neither will he ever accept a mealworm, or what he is equally fond of, a pinolia nut. He has the greatest dislike to bare feet, and should he be flying loose in the room in the early morning, will attack one's toes viciously. His pecks are not sufficiently severe to hurt, and I regret to say he will treat his wife, if allowed near enough, in the same way as toes!

The variety of notes in a Shama's songs are marvellous, his powers of imitation are enormous, he can copy a dog barking, a Canary singing, Rooks cawing, all with the greatest ease. His nature is intensely jealous; the reflection of himself in a looking glass makes him furious, and with tail very flat down and wings drooped, he shouts all his stanzas of song in succession, mixed with fierce pecks at himself.

The great fault in Shama's natures is their sulkiness. Should the cage be put into a room they don't know, sometimes as long as two days may elapse before a note will be uttered; at the same time I really think these are the most attractive of birds, and certainly equal the Hangnest in tameness.

E. WARREN VERNON.

SEX OF BLACK-CHEEKED LOVEBIRDS.

SIR,—Cannot Mr. Temple go one step farther, and tell us how to sex the young and immature Black-cheeked Lovebirds? Others besides myself have met with difficulty here. I have found the iris to vary in colour, possibly in accordance with the age of the individual, quite a number of different shades of brown appearing.

Moreover, perhaps as a result of our climate, some if not all of the old females have lost the black, and have assumed a rich rather deep brown-red iris. At present confusion rather than rule seems to prevail. Can Mr. Temple produce order out of chaos?

REGINALD PHILLIPPS.

THE YOUNG MALE PIED ROCK-THRUSH.

SIR,—The young Rock-Thrush which you kindly described in our last number was bred in June, not September. See page 316 of the September number of last year.

REGINALD PHILLIPPS.

[Many apologies for this slip; when I said "*month*," I meant "*year*" of course.—ED.]

LONGEVITY OF PINTAILED SANDGROUSE.

SIR,—The recent death of an old female Pintailed Sandgrouse which I first got in 1892 is, I think, of sufficient interest to be recorded in the *Avicultural Magazine*. The Sandgrouse in question, which was one of four purchased from Pring, a bird dealer who used to carry on business in the Brompton Road, was of the Eastern race, *Pterochlorus alchatus*. She paired and nested in 1893, and bred regularly, rearing her young ones annually with one or two exceptions until three years ago. Then for two years she laid infertile eggs, and this last summer she did not lay, but she moulted out every feather and then began to fail, and died apparently of old age. Which it well might be, for she lived in confinement seventeen years and was certainly at least eighteen years old. She was the means of the discovery of the extraordinary breeding habits of the Sandgrouse. That a bird that leads the life of a Sandgrouse should survive and thrive all these years in confinement in a climate such as ours seems to me marvellous. Nothing can be more different, and one almost wonders what might be the length of life of these birds in a purely natural state.

She survived four husbands, the last, her own son unfortunately, still survives her. She lived in an entirely open unheated aviary always, but with good shelter from wet, and got all available sun. I may add that with other food she had practically as much hemp seed and maw seed as she liked, and the latter was her principal and favourite food!

E. G. B. MEADE-WALDO.

BREEDING WHYDAHs,

SIR,—I notice in Mr. Teschemaker's most interesting and instructive article on the nesting of the Giant Whydah, that he says:—"One of our members has this season successfully reared young from both the Pintailed and the Red-collared Whydahs, and, inasmuch as the first indication that breeding was going on was the actual appearance of the young, it is evident that the parents received no assistance from their owner."

It is extremely unfortunate that the breeding of the Pintailed Whydah was not observed when we remember that Mr. Austin Roberts (*Jour. S. Afr. Orn. Un.*, 2nd ser., Vol. I, pp. 9-11) expressed his belief that it was parasitic upon various Waxbills, not building any proper nest of its own and laying pure white eggs, whereas the late Mr. Stark had described its nest of the typical Whydah type with the grasses to which it was attached tied together over it so as to conceal it, and Captain Shelley had described the egg as spotted like those of other Whydahs. If, however, no Waxbills were present in the aviary in which the Whydahs were bred the only suggestion of Mr. Roberts' which now remains to be disproved is the character of the eggs.

I don't and never did believe in the parasitic habit of *Vidua principalis* myself, as will be seen by my article (*Avic. Mag.*, 2nd ser., Vol. VI., pp. 121, 122), but one likes one's convictions to be supported by proof.

A. G. BUTLER.

HYBRID GRASS-FINCHES.

SIR,—Mr. Astley's hybrids between the Crimson and Starfinches are very interesting on account of their perfectly intermediate character, which indicates their close affinity. I have long suspected that those two birds were related, in spite of the fact that *Bathilda* somewhat reminds one of *Tænioopygia*. The outline, face mark of the male and the colouring of the tail, as well as the song, remind one more or less of *Neochmia*; both were, for a long time, confounded with the Waxbills.

A. G. BUTLER.

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AVICULTURAL MAGAZINE.

Edited by FRANK FINN.



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RUFOUS-THROATED TANAGER (*Glossiptila ruficollis*).

Rather smaller than Superb Tanager ; male (below), plum-blue with chestnut throat ; female (above), grey and brown.

Avicultural Magazine,

BEING THE JOURNAL OF THE
AVICULTURAL SOCIETY.

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MARCH, 1910.

THE CRYSTAL PALACE BIRD SHOW.

I. BRITISH BIRDS.

BY ALLEN SILVER.

Irrespective of limit classes, this division of the Show contained about 590 birds. These, almost without exception were first-rate examples of their kind from an exhibitor's point of view, and when one takes into consideration the ripe age and splendid appearance of many of them one cannot help reminding aviculturists proper of the great pains taken by their owners in getting them up to "concert pitch"; for to-day, slightly disarranged or frayed feathers, faulty feet, or any appearance of unfitness will prevent a bird from getting near the top.

Leaving out the more familiar crosses between Goldfinches, Linnets, Siskins, Greenfinches, Twites and *Serinus canarius* var. dom., it is worth while to allude to the fact that there were no less than 12 Canary-Bullfinch, 2 Linnet-Bullfinch, 1 Redpoll-Bullfinch, 10 Goldfinch-Bullfinch, 9 Greenfinch-Bullfinch Hybrids on view, and in the A.O.V. Hybrid Class were to be seen: 2 Goldfinch-Siskin, 2 Goldfinch-Linnet, 6 Goldfinch-Greenfinch, 2 Redpoll-Goldfinch, 1 Siskin-Linnet, 3 Redpoll-Greenfinch and 1 Brambling-Chaffinch Hybrids.

Two points of interest strike the aviculturist here, namely, that with Bullfinch crosses successful issue has at present occurred only when the female parent is a Bullfinch, the male of this species usually proving useless as a fertilizing agent, and, secondly, the fact that, almost without exception, Canary crosses even when bred from perfectly clear, *i.e.* unmarked yellow or buff canaries (paired to a finch that possesses no line-like markings

in its plumage) seldom fail to exhibit in a marked degree these line-like markings of the original wild Serin on their flanks and mantles. With regard to the Finch-like birds, the classes for Bullfinches contained 41 males and 16 females; that for Goldfinches made up a brave array of 41 birds. The Linnets numbered 41, the Chaffinches 22, the Bramblefinches 23, Lesser Redpolls 20, Twites 9, Siskins 19, Greenfinches 25, Hawfinches 16, Yellow Buntings 19, and the A. O. Species of Bunting Class contained fifteen birds, including one example of *Emberiza melanocephala* and a Meadow Bunting (*E. cia*), otherwise the Class consisted of one Cirl, three Snow, one Lapland, three Corn and five Reed Buntings. The Blackbird Class contained twelve birds; the Thrush Class thirteen, and that for Starlings thirteen birds, and in the small Crow Class were to be seen four Choughs, two Jays and only one Magpie.

Among the "Pied, Albino, or Rare Feathered" birds were two White Sparrows, one Pied and one White Linnet, one White Jackdaw, a White, a Pied, and a Cinnamon Blackbird, one Cinnamon Sparrow, one Cinnamon Redpoll, one Cinnamon Greenfinch, a Silver Starling and a Reed Bunting practically white, only marred by a few dark feathers. The Nightingale and Blackcap Class consisted mostly of Blackcaps, only two or three of the former birds competing, and they not up to the usual standard, making in all nine birds. The Any Species of Lark or Pipit Class contained some remarkable examples of *Alauda arvensis* and some Shorelarks and Tree Pipits. In the Class for A.O.S. Small Resident birds were two Bearded Reedlings, and a Tree Creeper, which, with the other birds, made up the number to eight. In the Class for A. O. Species Migratory Birds about the size of a Wheatear, were two splendid Black Redstarts, a Greater Whitethroat, a Yellow Wagtail, a Two-barred Crossbill (which was British-taken) and a good Grasshopper Warbler, which won premier honours. This class included Seed-eaters not otherwise classified, and consequently admitted the Two-barred Crossbill, which, by the way, was a cage-moulted male in "old gold" dress tastefully staged and an interesting exhibit. Among the birds competing in the A. O. Species Class larger than a Wheatear, seed-eating or otherwise, not previously classified, were two

Waxwings, two Redwings, two Missel Thrushes, one Red-backed Shrike, and a very fine Great Grey Shrike, which stood first. Whinchats, Common Redstarts, Wheatears, Stonechats, and Wag-tails of the pied, white and grey species were practically absent from the Show this season. Generally speaking the section was well supported otherwise, and although this branch of bird-keeping does not fit in with our requirements as a Society, I should like to point out that exhibitors do not keep birds in the small cages they are exhibited in. The very perfect condition and robust health of the majority of them alone confirms this, and I can assure the members of the Avicultural Society that the care, labour, and time expended in keeping birds in what is termed "perfect feather" would be tiresome to most of us; moreover so accustomed to journeys and show cages do old "champions" become that they behave in the manner comparable with that of a trained circus horse.

II. PARROTS.

By DAVID SETH-SMITH, F.Z.S., M.B.O.U.

The three classes of Parrots at the recent Show, although perhaps not above the average as regards number of entries, were certainly very far above so far as the rarity of the species was concerned. It is doubtful indeed whether such a choice collection has ever before been seen upon the show bench. Some exhibitors had sent birds which they may excusably have thought could hardly be beaten, but when they appeared in the arena they had to contend with such rarities as had never been seen at the Palace or elsewhere, and thus ordinary birds, however good, stood no chance.

The first class, "Budgerigars, Lovebirds, and Hanging Parrots," contained nothing really new. Mr. Townsend's Blue-crowned *Loriculus* was a gem, in perfect adult plumage, and well deserved its first prize. The Black-cheeked Lovebirds, of which a pair was shown, although so very rare a short time ago, have produced their kind so freely of late that they are now common. Mr. Millsum entered a pair of Johnstone's Lorikeets in this class, where, had they appeared they would have been disqualified, but

he thought better of it and exhibited them in the next, which consisted of all species of Parrakeets other than those comprised in the first class. This class is generally attractive, but on this occasion was much more so than usual. First came a Stella Lorikeet (*Charmosyna stellæ*), one of those exquisite creatures with which Nature has so richly endowed New Guinea. It reminds one somewhat of a small Purple-capped Lory with two very long, tapering tail-feathers, and took special for best foreign bird in the Show. The present writer was privileged to see several of these lovely Lorikeets on their arrival in England, and an extraordinarily fine sight they presented. Equally interesting, though less brilliant in hue, were Mr. Millsum's pair of *Trichoglossus johnstoniae*, the little Lorikeets from high up in the mountains of Mindanao, from whence Mr. Goodfellow brought the species to light. They very well deserved their second prize.

Mr. L. W. Hawkins took the third prize with a very good Bourke's Parrakeet, a rare species; while Mr. Millsum's pair of Golden-shoulders, which came fourth, might have been higher had they been in better condition; they showed too clearly the result of recent importation. This latter species is perhaps the most attractive of the lovely genus *Psephotus*, and, as several pairs have been imported of late, we may hope to hear of its having bred in captivity before long.

Another delightful bird was the Elegant Parrakeet shown by Mr. Maxwell. It did not obtain a card, evidently through the Judge's eagle eyes having detected the absence of a toe-nail. Pennants, Barnards, a King, a Redrump, a Swainson's, a Rosella and a hybrid Pennant, completed the class.

The class for the larger Parrots was headed by a very good Hawk-headed, shown by Mr. Beaty, while a nice Meyer's belonging to the Rev. G. H. Raynor came second; a Blue and Yellow Macaw, sent by Mr. Stubbings, came third, and a very good Grey, owned by Mrs. Bury, fourth.

A very nice Black-headed Caique (Mr. Hawkins) was awarded a "V.H.C." card, an Eclectus "H.C." (Mr. W. Smith) and a Senegal Parrot (Miss Bland) was "Commended."

III. FOREIGN BIRDS OTHER THAN PARROTS.

By FRANK FINN, B.A., F.Z.S., M.B.O.U.

Although the entry in this section, which I had the honour of judging, was not very large, there were, as usual some exceedingly good birds on view, especially among the soft-bills. In the class for the common small finches the first prize went to a very perfect Diamond Sparrow, excellent in colour and very steady, shown by Mr. F. Howe; second were the same gentleman's St. Helena Waxbills, an exquisitely perfect pair; Mr. S. Beaty's Nutmeg finches, third, were very well shown, though one had rather overgrown leg-scales; they were of the Indian race or species, with black lacing below, not of the much less handsome variety from further East, with the double brown lacing. Fourth went to Mr. Townsend's beautiful pair of Orange-breasted or Zebra Waxbills, which might have stood higher had not some of the cock's flights in one wing been only growing; the other pair of this species, though also fine, did not strike me as so good on the whole, and so took V.H.C. The Diamond Sparrow which was highly commended was a nice bird, but less good in colour than its rival which took first. "Commended" went to a pair of white Javas, which would have stood higher had not one had a few foul feathers and a broken tail.

In the class for rarer small finches, after considerable hesitation, I gave first to Mr. Maxwell's beautiful pair of Violet-eared Waxbills; the second prize bird, Mr. F. Howe's Melba Waxbill, a lovely, steady specimen, running them very close. Only one of Mr. O. Millsom's Tricoloured Parrot finches turned out, and took third; it might have been steadier with much advantage. Dr. Hetley's Bicheno finches, which were fourth, were an absolutely perfect pair. The same gentleman's Gouldian finches were V.H.C., their condition not being equal to that of the Bicheno's. Mr. C. T. Maxwell's Black-cheeked Waxbill would have got something much better than H.C. had it not been looking rather thick when I judged it. The species is not common, and, for the benefit of those who do not know it, I may say it is very like the St. Helena Waxbill, but has a black face and the beak dark, not red. Messrs. Ford & Son's Paradise Whydah well deserved its "commended" card, but could not stand higher

among such company; its condition was excellent. A Painted Finch was in this class, but looked too out of condition for notice.

In the last Finch class, for Grosbeaks, True Finches, and Buntings, Mr. C. T. Maxwell's perfect Painted Finch had hard luck in not being noticed; it should have gone in the previous class, where I should have given it first. An English Greenfinch had also got in this class by some queer mistake, in entering, I suppose.

The first-prize birds here were new to the show bench, as far as I know; they were exhibited by Mrs. E. Galloway, and were a fine pair of Brown-shouldered Blue Grosbeaks (*Guiraca coerulea*), in perfect feather but very wild at judging-time. Mr. Hamlyn had a small consignment of this species, which comes from Southern North America, last year, and there is one at the Zoo. This is, however, ever a lumpy-looking bird like a Greenfinch, whereas the show pair were smart and active like Chaffinches, and kept the head-feathers up in a semi-crest in the same way. The cock, like the Zoo bird, had the blue of the plumage dulled by the brownish edges to the feathers, evidently a winter plumage, since they only appeared in the Zoo specimen after the autumn moult. In summer, however, this species is much brighter than the Brazilian Blue Grosbeak, being a rich bright violet blue, so that it could be distinguished even without the larger size and chestnut wing-coverts. The hen is coloured and marked much like a hen Sparrow, but of a richer brown; I had not seen a specimen of this sex before, and the pair attracted much admiring attention from the aviculturists present. Second prize went to a nice little Hooded or Red Siskin, shown by Mr. C. T. Maxwell; and third to a really exquisite Pine Grosbeak, in full red colour, shown by Mr. J. Frostick; a nice Cape Sparrow, shown by Mr. L. J. Arrighi, was fourth; V.H.C. and H.C. went to a pair of White-throated Finches and a Virginian Cardinal respectively, neither of them in such perfect feather as the rest of the class, even had they been as rare.

The class for Tanagers contained only seven entries, all in wonderful trim and a great attraction. First went to Mr. C. T. Maxwell's Rufous-throated, and second to Mr. W. H. Pickles' Black-throated; this was the same order I gave these two birds

when judging at Westminster the year before last. The Black-throated, being a *Calliste*, scores in brilliancy of colour, but the Rufous-throated (*Glossiptila ruficollis*), a species confined to Jamaica, is of a more unusual type. (*See frontispiece*). This specimen is, I believe, the first of its kind imported; I identified it at Mr. Hamlyn's in its dull immature plumage, which resembles that of the female. Mr. J. H. Harrison's splendid pair of Maroon Tanagers, one of Mr. E. W. Harper's importations, stood third, while Mr. S. M. Townsend's Magpie Tanager was fourth. A Tri-coloured Tanager, shown by Mr. S. Beaty, won V.H.C.; it was to my mind the most beautiful bird in the class, but the rarity of the others prevented a higher award to it. H.C. went to an Archbishop Tanager, though this entry was marked "Superb" on the Catalogue; it was perfect, but for a stiff hind-toe, the only defect of any bird in this lot.

It was no easy matter to pass by Mr. S. M. Townsend's exquisite Yellow-winged Sugar-bird in the next class, for Sugar-birds, Honey-eaters, Zosterops, Bulbuls and Sun-birds, and give the first place to the Black-headed Sugar-bird shown by Mr. J. H. Harrison, but the latter was, I think, certainly the rarer, and in perfect condition. The Yellow-winged, however, might almost have been called "pluperfect" in that respect, and was more admired by the public than any bird in the show; I think certainly that from the point of view of beauty alone it was the best of any there, to my way of thinking. Beauty, however, is a matter of taste, while rarity is positive; that is why I favour the latter, and also I think novelties should be given a chance. Mr. C. T. Maxwell took third with a very nice hen Sugar-bird of the Black-headed species; this sex, it may be observed, is of a grass- or leaf-green throughout, not the silky sea-green of the cock, and has no black upon the head. Another cock Black-headed, shown by Mr. Millsum, was in this class, and took V.H.C.; its condition was not equal to that of the others, and the fourth prize bird, an otherwise good Gold-fronted Green Bulbul, had some flights missing. Although small, this class was on the whole good, but not better than the next, for all species not comprised in the above, and smaller than the King Bird of Paradise. Here Mr. S. Beaty's Levillant's Barbet, in good form, took first, and attracted

much attention from the public ; I think, however, that this award of mine is distinctly open to criticism, and that I ought to have wrong-classed this bird as too big. As I did not think of this at the time, however, it deserved to stand highest in the class, although the second prize bird, Mr. C. T. Maxwell's Great-billed Flycatcher was also in perfect form, though a harder bird to keep in condition. But then we have Flycatchers in this country, and no Barbets, so the less familiar type should score here. This



HIMALAYAN LANCEOLATED JAY.
(*Garrulus lanceolatus*).

Great-billed Flycatcher (*Cyornis magnirostris*)—which has not a noticeably big bill, by the way—is about the size of our common Flycatcher, and of a subdued blue above and pale chestnut below. It is an Indian bird, but I never saw it alive in India.

The third prize went to Mr. S. M. Townsend's White-capped Redstart, a bird I have seen both wild and in captivity in India ; although called a Redstart in books, it has not the lateral

quivering motion of the tail characteristic of those birds, but moves it up and down like a Chat. Mr. J. H. Harrison's beautiful pair of Silver-eared Mesias, another of Mr. Harper's importations, took fourth, and the same gentleman scored a V.H.C. with an equally perfect Blue-winged Siva. A rather unusual exhibit, shown by Mr. H. Lewis, was a pair of Chinese Painted Quail, a little rough on head, but a source of much interest—I was asked if they were young partridges! They were "highly commended,"



PIED MYNAH.
(*Sturnopastor contra*).

the "commended" going to a very fine Pekin Robin shown by Miss Victoria Lewis, which often sang during the Show. It looked like a colour-fed bird, but in India I have seen some exceptional recently-taken specimens equally rich in colour.

The last class which came before me, for all species not comprised in the above, larger than and including the King Bird of Paradise, also contained some rarities. The Hunstein's Magnificent Bird-of-Paradise, being in very fair condition, though

far from "steady," easily took first. Second went to a Bengal Pitta, a good tame bird, but, like most of these Pittas I have seen, not so sleek as could be wished; it was shown by Mr. C. Cushny. Mr. Maxwell's Lanceolated Jay took third; it had a few quills missing, but this was because it had escaped and had to be recaptured previous to judging. Fourth was a Glossy Starling, of a red-eyed species unknown to me, in perfect form, shown by Mr. Townsend. I was surprised to find my old Indian friend, the Pied Mynah, in the Show, and no one seemed to have seen it on the bench before; in fact, it is very rarely imported, though one of the commonest birds in India. Accordingly, I felt justified in giving it a V.H.C., though it was not very steady, and not so sleek as I could have wished. It was shown by Mr. C. Cushny. Mr. Otto Puck's Common Hangnest took H.C.—a good bird, but over-matched by its competitors, and the same gentleman's Blue-cheeked Barbet was "commended"; I should have put it above his other exhibit if its tail had not needed a wash and if one of its quills had not stuck out.

As I feel deeply gratified by being honoured by an invitation to judge at the greatest avicultural fixture of the world, I hope exhibitors will pardon some criticisms which suggest themselves. One is, that too many birds are put on the bench before they are really ready—not sleek or steady enough; another is that pairs are shown. I do not see why this should be done; it has been given up long ago in the case of pigeons, and more recently in that of fancy waterfowl, and often one bird of a pair drags down, by reason of some imperfection, a superior partner, as happened on the present occasion more than once. If I had a good pair of birds to show I should send them out separately, or keep the hen at home altogether, with a view to future breeding.

Furthermore, I strongly object to the classification now in vogue, which is very hard on the exhibitor, who may not be well up in scientific matters; and I think foreign birds should be classified on size and feeding habits, due provision being made for classes for the very common species. It is the comparative lack of such provision, to my mind, which is responsible for the very poor show the foreign birds present, as far as numbers go, alongside the British section.

NESTING OF THE BLACKCAP.

Sylvia atricapilla.

By W. E. TESCHEMAKER, B.A.

The Blackcap is far and away the hardiest of our Warblers—in fact it stands in a class by itself. There can be no doubt that it is want of insect food and not delicacy of constitution that compells it to leave our shores in autumn.

A few individuals remain in Devonshire and Cornwall every winter, and as a rule they seem to do well. In a sheltered outdoor aviary it thrives; in fact the only male I have kept this winter has sung every morning, rain or shine. All our other Warblers appear to me to do much better in a heated aviary. I am quite aware that some of our members are able to show good results in cold aviaries, as, for instance, Mr. R. Suggitt, who tells me that his Whitethroats, etc., do quite well in an outdoor aviary with a good snug shelter even in Yorkshire. One of the first things we learn in aviculture, however, is that what one man can do another finds impossible and I can only say that they do not do as well under these conditions with me. By the use of artificial heat, however, I find I can get quite good results and this winter, amongst a mixed lot of Garden Warblers, White-throats, Nightingales, Pied and Spotted Flycatchers, Blackstarts and one Dartford Warbler, I have only had three deaths, in each case due to accident, in spite of the complete breakdown of the live bait commissariat. On the other hand in a cold aviary I lost a beautiful pair of White Wagtails, though this was probably due chiefly to the want of insect-food.

Just as the Blackcap is by far the hardiest of the Warblers so it is, I think, very much the least difficult to breed. The fact that our member, Mr. Suggitt, reared a fine brood (only a fortnight after I succeeded) shows that the experiment is quite a feasible one; on the other hand the fact that both he and I and, I think, other aviculturists also have had many failures shows that the Blackcap is not bred every day. I was rather amused the other day to come across the following paragraph written by the late Dr. W. T. Greene:—"Hand-reared specimens of this species will breed in a cage or aviary as freely as

Canaries, making their compact, but not heavy, nest of hay in a bush if there is one at their disposal or, lacking that, in an ordinary nest-basket. . . . The different pieces are very firmly interwoven, so that it really requires an effort to separate. . . . The elastic nest of the Blackcap may often be found in the spring as firm and compact as when the little builders first put it together nearly twelve months before. . . . The Blackcap, like the Nightingale, is an amiable little creature and never interferes with any other bird."

Now I do not for one moment say that the Blackcap has not been bred—indeed I think it very likely—but I do say that I feel almost sure that Dr. Greene did not breed it himself because he describes it as peaceable. This is just the sort of nonsense that anyone who knows our silky little Blackcap only as a cage-bird would write, whereas anyone who has had experience of the species when actually engaged in breeding will I am sure agree with me that for concentrated ferocity it has no equal among British insectivorous birds. Can anyone confirm Dr. Greene's observation as to the durability of the Blackcap's nest? It is well known to be the flimsiest of all British birds' nests and I have certainly never noticed that it was remarkable for durability; the only one I ever dissected almost fell to pieces. If the Blackcap can be bred as "freely as the Canary" why do we take so much trouble to catch them and meat them off? One would think that domesticated Blackcaps would be advertised at so much "per stick." I fear the breeding of Blackcaps in cages must have become a lost art since Dr. Greene's time. I agree with Dr. Greene that there is no difficulty in obtaining nests, eggs and young from this species and probably this is all that he meant to convey when he described it as "breeding freely." The difficulty is in rearing the young, and, if this has been done, I can only once more invite those who have been successful to throw aside their natural modesty and to come forward and let us hear all about it, because all my efforts to discover their identity have hitherto proved unavailing.

And now let me see if I can find anything of interest to relate regarding my own efforts to breed *S. atricapilla*.

Up to 1905 I only kept males of this species for their song,

but in that year I had a pair which built a nest but did not apparently lay: I think the female was a very old bird. In that same summer I caught a couple of young Blackcaps which had been bred in my garden and which proved to be both females.

In 1906, therefore, I had an old male and two young females. When the spring came round and the hawthorn began to look green, I heard the cock Blackcap uttering a peculiar note: it was a dissyllable and sounded like the word "*e-jus*" or perhaps "*e-ja*." At the time I did not understand what it meant but I have since had cause to know it well; it should be a sort of red flag to the aviculturist, for it is the war-cry of the Blackcap, and it means battle, murder and sudden death. Now I had a pair of Garden Warblers in the same aviary and throughout the winter they had been the best of friends with the Blackcaps. But now the male Blackcap began to stealthily pursue the Garden Warblers: from bush to bush he followed them and all day long he kept them on the move, ever uttering his war-cry. There was a deadly, cold-blooded tenacity of purpose about his movements: he never openly attacked them but, wherever they went, the Blackcap was close on their track. One morning I found the male Garden Warbler on the ground: it was warm, but it was dead—yes, dead as New Zealand Mutton. A day or two later I picked up the female; she too had reached that bourne whence no traveller returns. I now became gravely suspicious. I recalled the strange pursuit of the Blackcap and I could not help comparing it with the methods of the dreaded *Mafia*, whose agents follow their victim night and day until in some lonely spot they spring upon him and drive the stiletto deep into his heart.

This "amiable little creature" (to quote Dr. Greene) now turned his attention to one of the young hens: in a few days she too was lying stiff and stark. He now paired with the other female and built a nest in a low privet. I will continue the story by an extract from a paper I contributed to *Bird Notes*, written whilst the circumstances were fresh in my mind. "The nest was one of the frailest structures I ever saw, resembling the framework of a nest just commenced. Unfortunately the Chingolo Song-Sparrows selected the same time for nesting again and

the most furious conflicts took place. As I had set my heart on breeding the Chingolos I removed the cock Blackcap. The hen sat very steadily on three eggs, and I thought it quite possible she might rear the young single-handed if well supplied with insect food. The day after she hatched I went out soon after daybreak to see how matters were progressing. A glance was sufficient to show me that success was not to be mine. The bird absolutely refused to feed with any insects I supplied, and was busily engaged in searching every leaf. As soon as she found anything she took it at once to the young birds; in the meantime the young were getting completely chilled. In two days all were dead."

As mentioned above, I removed the cock Blackcap and confined the "amiable little creature" in a cage by himself in the bird-room. And now a strange thing happened. I gave him a few mealworms to console him for the loss of his wife and family. The bird, however, did not seem in the least inclined to pine. He danced about the cage and sang brilliantly and almost continuously—but *he did not eat*. To test this, I counted out a certain number of mealworms and placed them in one receptacle, and in another I placed a section of banana, cleanly cut with a knife, so as to show the slightest peck. Will it be believed that, for two days, he eat literally nothing, and on the third, only a few mealworms? Yet, after a fast which would indubitably have killed any small insectivorous bird *under normal conditions*, he was obviously perfectly well; he gradually returned to his ordinary diet and lived another two years in captivity. The bird was clearly in one of those singular conditions of *mental* exaltation in which the body will perform the most extraordinary feats of energy and endurance. This is not quite such a commonplace observation as it may appear, because it helps us to understand how the smaller migrants perform those wonderful and arduous flights across the open sea, often in the teeth of adverse winds. Without doubt it is under the stress of an overmastering and transcendental emotion, which the human mind cannot fully comprehend, that the tiny Golden-crested Wren launches itself on that long and arduous flight across the stormy waters of the North Sea. Suggestions have been made to the effect that

the Swallows find plenty of insect food in the upper strata of the air, and that Hawks and Owls dine *en route* on their fellow-migrants, but the above observation suggests, I think, the simplest explanation of all, namely, that under conditions of mental excitement they do not require any food.

Some time since I said in our Magazine that I thought the study of British birds in aviaries was more interesting than the study of foreigners. Dr. Butler took the opposite view, namely, that the lives of our common birds were so well known that it was more useful to study foreign birds. I wonder if any definite proof of the above fact has been previously adduced. It is quite likely that similar observations have been made and have escaped my notice, but, should mine prove to be original, then I think it will be admitted that the aviarist can glean useful scraps of information even about our most common species.

I now come to 1908, in which season I confined the same male and female Blackcaps in a breeding pen, in view of the extraordinary pugnacity of the species. Again the male "sang of love and desire" (as the old German song runs): again a nest was built but, just before the eggs should have appeared, another strange thing happened. I watched the male one day perched on a bending spray, his throat swelling, every feather quivering with the energy of his song—*but no song was heard*. Yes, the singer was dumb: his voice was gone for ever! For several days the bird seemed to refuse to recognize the fact: he tried persistently to sing. Then he gave it up and in a few days he was dead. Was his heart broken? Who shall say? Personally I think it was simply old age, for he had been in my possession four years and may have been an old bird when I got him.

At the commencement of 1909 I had four male and two female Blackcaps, all of which lived peaceably together until the spring came, when I once again heard the war-cry. This time there was a free fight—all against all—and the females fought as savagely as the males. Result: one male killed, another had a broken leg, and a third was slightly damaged. "Amiable little creatures"! However, the remaining male and two females settled down very comfortably together: the male paired with both females, and both the latter built and laid, showing that the

Blackcap (like many other Passerine species) is an occasional polygamist. The male was always ready to assist in incubating the eggs, and proved a most devoted husband and father. I spoilt the chances of one nest by various experiments, but from the other three young flew, or I should say scrambled, on 13th July, for the young of this species leave the nest before they can fly. It was very curious to see them crawling, and worming their way about amongst the thick foliage, and I cannot help thinking that young birds at this period of their development give us a glimpse of the Lizard-like animals from which they are descended. The adept manner in which they climb up perpendicular surfaces by the aid of their sharp claws with the slightest possible assistance from their wings is very remarkable. Although the young Blackcaps seemed so defenceless I had the greatest possible difficulty in catching one for the purpose of inspection. It was dark brownish-grey on the head and back; flights brown; abdomen white. By the 21st the crown had assumed a distinct reddish-brown shade. On the 31st July one young bird was showing two black feathers on the crown. I have recorded not a few evil deeds on the part of my Blackcaps, but the worst is to come. On 2nd Aug. the adult male murdered his own son just because he was getting a black cap and had commenced to warble a little! "Amiable little creature"! I sent the victim to Mr. W. T. Page for inspection, and he pronounced it a fine specimen. The young females I ringed and released about a month later, hoping that they might give me a look up in the following spring.

One word about the rearing of these young Blackcaps. I attributed my failures with one or two previous broods (not mentioned in these notes) to the use of gentles, so on this occasion I withheld all gentles for the first ten days after hatching and was inclined to attribute the result to this policy. However, hearing that Mr. Suggitt had reared his on gentles alone I wrote to him for further information and append his reply: "The staple food of my Blackcaps when rearing the young consisted of gentles. I gave the parents a few spiders occasionally and branches of infested trees; you, however, know what this means in a mixed collection with a dozen other Warblers, not to mention Waxbills,

etc., all of which are fond of Aphis. The Blackcaps of course caught a few insects, but I am satisfied that quite 90 % of the food given to the young was gentles for the first 14 days."

A good deal of misconception appears to exist as to the date at which young males assume the black cap, and Bechstein recommends drawing a few feathers from the crown, in which case they would be replaced by black ones and so show the sex. As I have shown, the black feathers appear on the crown at quite an early date, and I feel sure that this is normal, because last October I examined quite one hundred male Blackcaps which had been caught on migration and imported, and not one had any brown on the head, although a large proportion of them must have been young birds of the year.

Although we only see Blackcaps singly in this country, they pass through the South of Europe during migration in large flights. Years ago, in an olive wood, looking down on the beautiful Côte d'Azur, I saw one such migration and shall never forget it. It was about the 10th March and the birds had just landed after their passage across the Mediterranean. Every tree was full of Blackcaps—all males in full breeding plumage. They flitted silently from tree to tree, not pausing to look for food, but pressing on with set purpose on their long journey northwards. There must have been hundreds of Blackcaps in that olive wood.

P.S.—On looking through my note-book again I find that it was in 1907 (not in 1906) that the Garden Warblers were slain by the male Blackcap.

NOTES ON MY VISIT TO AUSTRALIA.

By DAVID SETH-SMITH, F.Z.S., M.B.O.U.

(Continued from page 28.)

STANWELL PARK.

This charming spot—another of the pleasure-grounds of the favoured citizens of Sydney—is situated on the coast, about 35 miles south of the metropolis. It consists of a wooded valley running down to the sea, with hills on either side ending off abruptly in cliffs rising to a considerable height.

It was nearing the date of my departure and I was extremely busy with my collection, which now numbered several hundred animals, the boxing up of which for an eight weeks voyage was no light undertaking. My excellent friend, Mr. S. Le Souëf, was also very much occupied in preparation for his wedding and honeymoon trip to Europe. We both decided however that we would snatch a week-end and take a trip to Stanwell Park, which my friend knew well, and described to me as a rich field for bird observation.

On the evening of April 4th we took train on the Great Southern Railway for Stanwell Park Station, which we reached long after dark. We found most excellent accommodation at a delightfully comfortable boarding house. In the morning I woke early and heard the song and call-notes of innumerable birds, for within a stone's-throw of my window the thick eucalyptus bush, interspersed with tree ferns, commenced. We were at the foot of high hills, all thickly timbered, and below us, within a short distance, lay the Pacific Ocean. I heard many birds which I had got to know well, and several whose notes were unfamiliar. The Lyre Bird was distinctly heard, though it is far less common here than in National Park. The Coach-Whip Bird repeatedly endeavoured to deceive us by its imitation of a stock-driver's whip.

We started out early and made for the rocky bed of a stream, which at this time was almost dried up, though, after rains, it is converted into a rushing torrent down the hill-side.

The first birds we met with were a party of Blue wrens, some seven or eight in number, in a large clump of the introduced blackberry; all in undress plumage. Australian Waxbills (*Ægitha temporalis*) simply swarmed in some low bushes at the back of the house, while the commoner Honeyeaters and Yellow-Tails were often seen.

We climbed up the hill-side in the bed of the stream, jumping and climbing from boulder to boulder. To either side the ground was covered with magnificent ferns of all kinds, from the delicate Maiden-hair, to the lovely tree ferns, and the handsome Palm *Seaforthia elegans*, towering above which came the lordly forest *Eucalyptus*.

A little Rock Warbler (*Origma rubricata*) dodged about under the boulders, flying from under our very feet and disappearing beneath another great stone some yards ahead of us, repeating the performance as we ascended the gully. In a high tree above we detected the cry of the Grey Crow Shrike (*Strepera cuneicaudata*), and we caught a glimpse of the beautiful Bronze Cuckoo (*Chalcococcyx plagosus*). Yellow-breasted and Dusky Robins were seen, while the little White-shafted Fantail was much in evidence.

Rain commenced to fall, and we took shelter under an immense overhanging rock. High above our heads we heard the cry "Whe-o, whe-o," which my companion immediately recognised as the note of Black Cockatoos. Looking up we were delighted by the sight of a party of these magnificent birds, the Funereal, or Yellow-tailed Cockatoo, (*Calyptorhynchus funereus*) flying above our heads. This is the Eastern representative of the fine Baudin's or White-tailed Cockatoo, which I had become quite familiar with in Western Australia.

We slowly retraced our steps down the rocky stream bed, and found the descent by no means easier than the ascent; so slippery were the rocks, and so deep were the intervening pools, that on more than one occasion we narrowly escaped a wetting.

In the afternoon we struck out in another direction, taking the main road to the East, leading from the valley to the summit of the cliff. To our left was the wooded hill-side, to our right the sea. As we passed through the first belt of timber and low scrub I had the best view of the Coach-Whip bird that I had had. We heard the bird "cracking its whip" quite close to the road side; after every crack his mate added an answering note. Presently the female flew across our path, and a second or two later the male appeared on the fence some twenty yards in front of us. He appeared to take no notice of us, and espying some dainty grub on the surface of the road descended and snatched up his prey, at the same time giving us a most perfect view, his black dress and white cheek patches showing out very distinctly on the dusty roadway.

A couple of cock White-throated Thick-heads (*Pachycephala gutturalis*) were chasing one another about the branches just

above us, their brilliant yellow breasts, black caps and white throats forming a fine contrast to the grey-green foliage of the eucalyptus. As the road approached the summit of the hill a most perfect prospect was presented to our eyes. We were at the top of a high cliff rising sheer out of the sea, and as we looked back over the valley the cliffs on the opposite side made a lovely picture with the waves dashing at their foot; but what pleased us most was the view obtained of a pair of mighty White-bellied Sea Eagles gliding on motionless wings over the valley, the bright sunlight lighting up the pure white of their undersides. We watched them until they were out of sight, but could not detect a motion of their pinions.

The only other bird, which I clearly recollect during that afternoon stroll, was a Butcher-bird (*Cracticus destructor*), which on that occasion struck me as being one of the finest songsters I had heard since my arrival in Australia. It was perched on the topmost branch of a dead tree, and its loud flute-like notes, answered in the distance by a rival, gave a special charm to the whole country-side.

(*To be continued.*)

THE WATERFOWL AT STEPHEN'S GREEN, DUBLIN.

By Major B. R. HORSBRUGH.

Although it is well known in Ireland that Dublin boasts of an excellent collection of waterfowl, it may not be generally known to the readers of the *Avicultural Magazine*, and I therefore send a few notes on the birds to be seen there.

The ornamental water on which they live is by no means large, and Mr. Kearney, the Superintendent, who is a most enthusiastic ornithologist, tells me he has many difficulties to contend with.

First and foremost are the cats; Stephen's Green is in the centre of a city square and, of course, cats simply swarm, and no trapping is allowed; how the duck manage to do so well I cannot imagine. Next, dogs run loose everywhere, and the waterfowl avoid them as best they can. Herring-gulls are great enemies

to the ducklings, but they and rats can be dealt with, and generally are; and, lastly, the water is infested with huge eels which can, and frequently do, take the young ones.

It speaks volumes for the care which Mr. Kearney and his subordinates lavish on the birds to see the great variety on show, the condition they are in and the large number of rare birds bred there.

Some years ago the Board of Public Works, to whom the collection belongs, obtained a pair of Black-necked Swans (*Cygnus nigricollis*): the male bird proved to have been rendered sterile by caponising, and they had the mortification of seeing the female laying and sitting steadily on infertile eggs. At last, however, this state of affairs was remedied, a good male was obtained from the Antwerp Zoological Gardens, and young were reared in 1908 and 1909.

Mr. Kearney tells me that the female Black-neck is apt to go off the nest with the first one or two eggs that hatch, and to leave the remaining good eggs to die, which is rather trying.

Black Swans have been kept, and did so well that one year they reared no less than twelve young ones, but there is only one bird on the water at present, as during the breeding season this species is so dreadfully savage to other birds. A breeding pair of Black Swans I knew of, on an ornamental water near Dover, drowned every young Mallard as soon as it appeared on the water this last summer.

Only a few of the most interesting geese are kept, owing to the way in which they render the turf unsightly by eating all the grass.

The *Cereopsis* breeds regularly; but more interesting than they were three Ross's Snow Geese (*Chen rossii*) and three Lesser White-fronted Geese (*Anser erythropus*). One of the latter paired last summer with a Bernicle Goose, and reared two broods of one and five young respectively, all of which are still alive and fully grown. They are exactly intermediate between the two parents, but not as handsome as either.

Another hybrid was between Bernicle Goose and Bar-headed Goose (*Anser indicus*), this was also rather ugly but interesting.

There were a pair of hybrid Ruddy Sheldrake (*Casarca rutila*) and Egyptian Goose (*Chenalopex egyptiaca*), a cross which is fairly well known, and extremely savage they are, so much so in fact that, in spite of the web of one foot only being split up to stop them swimming well, they have to be shut up away from the other fowl during the breeding season.

Other hybrid Sheldrake were between the Ruddy and Australian and Ruddy and New Zealand Sheldrake. There were the European Sheldrake (*Tadorna cornuta*), Mallard, Wigeon, Common Teal and Garganey, several pairs of Japanese Teal (*Querquedula formosa*), some Yellow-billed Teal (*Q. flavirostris*), a little bird from S. America, which much resembles the Yellow-billed Duck (*Anas undulata*) of S. Africa, in miniature, and which breeds freely.

Then there were Pochard (*Nyroca ferina*), Red-crested Pochard (*Netta rufina*), White-eyed Duck (*Nyroca ferruginea*), Tufted Duck (*N. cristata*) and some lovely old Scaups and some Golden-eyes. Several Rosy-billed Duck (*Metopiana peposaca*) were swimming about, as well as the lovely Mandarin and Carolina.

A male Mandarin and female Carolina paired some years ago and hatched the young, but the hen bird was killed by a dog and the ducklings all perished; but two birds are now similarly mated, and it is to be hoped that better luck will attend this venture. I am sure that the result would be a very attractive hybrid.

Several Fulvous Tree Duck (*Dendrocygna fulva*) surprised me by suddenly rising and flying round the square. On inquiry I found that they had been bred on the place, and that this species breeds every year. The Red-billed Tree Duck (*D. autumnalis*) has also bred here, but not within the last few years.

Scores of Mallards were on the water, several of them showing a cross of the Indian Spot-billed Duck among them. These are often joined by wild Mallards from the sea, which is quite close, as well as by Pochard and by Teal.

Several Mallard and Pintail hybrids were also to be seen, as well as pure Pintail (*Dafila acuta*), Chilean Pintail (*D. spinicauda*), Bahama Duck (*Pæcilonetta bahamensis*), Shovellers and Chiloe Wigeon, which latter breeds regularly.

Added to all these captive birds were scores and scores of Black-headed, Common and Herring Gulls in all stages of plumage, screaming and fighting for every bit of bread thrown to the duck, and I think it will be admitted that the sight in Stephens Green is one most attractive to a bird-lover.

It may be of interest to record that after February all the Black-headed Gulls leave for their nesting sites, the Common Gulls leave in March, and the Herring Gulls a little later.

THE EUROPEAN ROCK THRUSHES.

By W. H. ST. QUINTIN.

There is a curious feature in connection with the European Rock Thrush (*Monticola saxatilis*) which I have not seen recorded. Mr. Dresser ("Birds of Europe") observes that the adult male has a winter dress, differing from the summer plumage in being "more obscure." Mr. Dresser notes that the Blue Thrush (*Monticola cyannus*) also has a winter plumage, differing from the breeding dress, inasmuch as the blue on the head and upper chest is less intense, and each feather of breast and flank is edged with greyish brown.

To the ordinary observer the Pied Rock Thrush appears more of a Chat, and the Blue Thrush to be nearer the true Thrushes, and Mr. Dresser says that he was inclined to think that the Blue Thrushes might be kept generically distinct from the Rock Thrushes, but in the end he came to the conclusion that he could not separate them. And yet, in spite of the obviously close relationship between them, those who have kept these two European species may have noticed that they have a very different way of assuming the nuptial dress (I speak of the males only).

The Blue Thrush sheds no feathers in the spring, and become gradually brighter by the casting of the feather tips, and also perhaps as regards the blue of the head and throat, by the colour pigment intensifying under the subtle influence of the approaching breeding season. On the other hand, the Pied Rock Thrush undergoes a very full (complete?) change of the body feathers in early spring. As far as I can see, except the tail and

wing feathers, all the winter plumage (head, neck, and body feathers) are moulted.

I have a twelve-and-half year old male Pied Rock Thrush before me; and two days ago (Feb. 12th) I found the first small feathers on the floor of his cage, some of which I enclose. The change is extremely rapid, and in little more than a month the bird's appearance will be quite transformed.

My Blue Thrush, I am sorry to say, is a year older still, and has this autumn become almost blind. He has never been heard to utter a note since his sight failed, though previously he would always acknowledge my entrance into the room by a song. While at liberty in the room, he would let me pick him up, and from the bottom of my pocket would utter a few sweet notes, really I believe a challenge to combat! I never knew a bird become so utterly fearless of human beings, or of the dogs of the house; and yet, when I brought him from Cannes in 1898, a mowing-machine on the lawn, or the sound of carriage-wheels, would send him fluttering round his cage in wild panic.

Within a few days of the end of June last year (1909) I found both these species feeding young near the southern end of the Simplon Pass. The young Pied Rock Thrushes were amongst some huge boulders on the side of the Val Toce' and the Blue Thrushes' nest was in a hole in a viaduct of the Simplon Railway, above Domodossola.

NESTING OF THE WHITE-THROATED PIGEON.

Columba albigularis.

By T. H. NEWMAN, F.Z.S., M.B.O.U.

It will be remembered that mention was made in the *Avicultural Magazine* for October, 1908, that six of these magnificent birds had recently been imported from New Guinea; they were deposited at the Zoological Gardens on September 24th, 1908, special attention being drawn to them in the report on the additions to the Menagerie for that month. Only one specimen seems to have been previously exhibited there; that was in 1874, and then its stay was brief, as certain remarks on its anatomy appear in P.Z.S. for 1875.

I purchased the six birds on the 7th November, 1908, removing one pair to my own aviaries on the 12th of the month. It is of this pair that I am going to write. I need say very little about the other four which I allowed to remain at the Gardens; they are such large birds that I thought two were enough for my limited accommodation and that such beautiful birds deserved to be seen and admired by visitors to the Zoo.; but they did not thrive there, and by the middle of the summer three of them had developed more or less white in the plumage, one looking almost like a Spangled Game Fowl, while another had a pure white tail feather besides white on the wings; I believe they would soon have died if I had not removed two on 31st July and the last two four days later. They have much improved in health since, and I expect the white will disappear during the next moult; anyway, it will be interesting to see what will happen. The birds differ in their temperament: the first two were nearly always to be seen outside in the flight at the Western Aviary, while the other four never seemed to come out of the inner part unless obliged to; I wonder if the warmth affected their plumage? And even now they keep much to the same ways, the last four spending much time, and I believe roosting, in the inner house, while the first two seldom go into theirs; during the summer they roosted in the open, but since the winter under the glass shelter in front of the inner house.

The White-throated Violet or Metallic Pigeon is the most beautiful member of the finest group of the typical Pigeons, to which the sub generic name *Ianthænas* has been given; they are probably largely fruit and bud eaters in their wild state and approach the Imperial Fruit Pigeons (*Carpophaga*) in appearance and some of their habits.

I hardly know how to describe a bird which completely changes with every ray of light; see a poor specimen on a dull day, it looks little more than a black Pigeon with a vinous breast and white throat; but catch sight of a newly moulted bird in the bright sun, then a Humming-bird could scarcely surpass it in brilliancy of colouration. The general plumage is blackish slate; every feather, except the quills and tail, being edged with glittering metallic hues; the front of the neck and breast are of

a beautiful vinous shade ; generally the hind neck, mantle and rump appear of a shining green, while every small feather on the wings is edged with the same colour ; the crown appearing a beautiful pink, while the fore neck and breast have a fine pink lustre ; but catch sight of the bird at a fresh angle, then the crown will reflect green lights, the neck will glow with pink and copper and the whole breast becomes shot with the brightest green and pink ; again, rich purple glosses may be seen. It is this wonderful diversity of colouration that forms one of the chief attractions of this beautiful bird and makes one never tired of looking to see how it will appear next. A fine drawing I have, by Mr. H. Goodchild, showing the same bird in two positions, shows well how different the same bird may look. The most conspicuous feature is the pure white chin, throat and ear-coverts, which show up when otherwise the bird would scarcely be noticed. The beauty of the bird is much enhanced by the eye and bill ; in the former the iris is orange-scarlet becoming yellow next the pupil, and is surrounded by a bare rosy-carmine ring broader in front next the bill, where it comes to a point ; the bill itself is rather long and is of a rosy-carmine tint with the hard part at the tip yellowish-horn colour ; the feet are pale carmine with yellowish-horn claws.

In size and shape it much resembles our Wood-pigeon (*C. palumbus*) ; as the legs are rather short the bird looks best on a branch ; it is thoroughly arboreal in habits and only seems to come to the ground to feed. When the cock displays to the hen the neck is inflated and he bows slowly towards her uttering a single very deep note, which is followed by a second one as though he were drawing in his breath ; when the head is raised a distinct jump is often made up and down on the perch, a very *Carpophaga*-like habit, so that the bird may be said also to have a dance. I am sorry I have not noticed this point closer, but though the pair are seldom far apart, I have hardly ever seen them caressing one another as Pigeons so often do, and have not heard them coo frequently. They are very quiet and peaceable birds. The flight seems rather slow and heavy but would doubtless appear very different in the open. The sexes are alike, the cock being rather larger and seeming to have a longer neck, while the hen seems more squat on her legs.

I have not come across any account of the habits of this Pigeon, so that the following letter, most kindly written to me by our member, Mr. Walter Goodfellow, who procured and brought the birds to England, will be of all the more interest. It is dated 3rd November, 1908. He writes:—"I am not surprised that you should admire the White-throated Pigeons. When in good plumage they are very handsome and shine with all sorts of surprising colours. Although I believe they are found all over New Guinea and a few years ago I saw some in captivity in the Moluccas (Banda Island), I had never met with them myself until I went to British New Guinea. During the very wet months of February and March I never saw any; probably like most of the other Pigeons there, they retire at that time to the Eastern sides of the high main ranges where it is dry. I found them range up to 5,000 feet, and they probably go higher still in the very dry weather. Mine were caught in May at 4,000 feet, and they were quite numerous then in the Moroka Mountains, whereas at the same place in February I never saw one. In April I began to see them about singly near the Owen Stanley range and at the other camp mentioned, in May, they came about in small flocks of seven or eight. Most days we caught some, and at one time I had eighteen or more caged together in an enclosure I had built for them in camp. I was uncertain whether to bring any home or not as they require a large cage, but I admired them so much that I could not resist bringing a few of them. They were a great nuisance to my nets; a flock would fly through carrying them either away bodily or breaking them so much that they were no further use. They roost in the tops of the highest trees, choosing the dead ones usually. They also retire to the same during heavy rains instead of, as one would think, to the shelter of leaves. They have a pleasant deep booming note, were rather troublesome to get on to maize at first, at least the first ones were, as they did not seem to understand it; of course later arrivals that were turned into the enclosure were no trouble in that way, as they learnt to eat it from the others.

"At the beginning of June I found several eggs on the ground at different times and again on the voyage home two were laid and broken, but I did not know which bird or birds laid them.

“ We used to catch a good many Pigeons of different kinds, fruit-eating and otherwise, but having so many other birds I could not bring them home, for I was a long way from the coast (eight days) and the question of carriers was a serious matter, as the district was very thinly populated ; as it was I had to abandon a great deal of camp gear and the sixty odd carriers I had practically exhausted the supply.”

Mr. Goodfellow told me subsequently that he had not met with the bird since, so that it seems that it is at any rate a partial migrant, very likely like other fruit-eating Pigeons being found where its food is in proper eating condition. I have often seen the birds sitting out on a bare branch during heavy rain, and I believe they eat little else than maize, of which I am always careful to give them a good supply, and they seem to thrive on it.

During the early part of 1909 my first pair of birds seemed to show some desire to nest ; a few sticks were collected on the top of a faggot of brushwood under the glass shelter and I used to hear the cock utter his single deep note, at this time without the second one, but after a little time they seemed to give up the idea, being disturbed I think by a pair of White-crowned Pigeons, and I thought there would be no further attempt to nest that year.

About the end of August they moulted ; for some time the cock was nearly bare of feathers on his white throat, and all the tail-feathers of the hen were broken when I first had her, but by the second week in September both birds were in perfect feather and fine condition. Having been away for a short time on September 17th, I could only see one of the pair of White-throated Pigeons, so began to search for the very possible remains of the other one ; when close to a large golden elder bush it suddenly flew out, and to my great surprise I found a well-built, almost flat circular platform of twigs about five feet from the ground, with a single large rather pointed white egg in the centre. After examining the egg I retired and the old bird soon returned to the nest. The egg was quite fresh and could only have been laid a day or two ; but, of course, the exact date is unknown. It was not until some days later that I was again able to catch sight of the egg ; there was still only one. The birds sat

very closely ; the cock would not leave the nest when I stood close by. I only once saw the egg left alone for a minute.

On October 2nd it hatched, sixteen days after being discovered ; I found the shell under a branch some distance from the nest ; it is of a very pale cream colour, and is rather coarsely granulated with very little gloss. I know the egg was not hatched on October 1st. The weather was foggy when the young was hatched and the next day was wet, but the parents covered it well ; as the nest was in the open a very little neglect would have been fatal.

The 6th was a fine bright day after much wet, in the morning the hen was on the nest ; she let me look at the young one, only raising one wing, puffing herself out and gently pecking at my hand when I touched the infant. Its eyes were just beginning to open ; its skin was very dark grey ; the quills were commencing to sprout in the wings ; its body, wings and head were covered rather sparingly with yellow down.

On the 9th, weather still bright and fine ; young one growing ; feathers on wings just ready to burst their quills. I could not get a clear view as the old cock kept striking at me with his wing and trying to cover the youngster by fluffing out his feathers.

I did not see the young one again until the 21st as I had been away. I was told that the old birds had been brooding very closely, and had not been noticed to leave the nest alone during my absence. However, on that morning both parents were off the nest ; the young one looked healthy. It was well-feathered with well-developed wings and tail. The yellow down still adhered thickly to the ends of the smaller wing-feathers ; in colour it was much blacker than its parents ; the whole general colour being slaty-black ; head sooty black ; bronze-green reflections on the back of neck and nape ; ear-coverts white ; chin, throat and base of bill quite bare and grey-coloured ; the bill looked very long. Soon the hen returned to the nest and sat by the young one, whose head only was beneath her feathers.

22nd. Young one has the breast feathers sooty black like the head, only a little lighter than the wings and very much darker than in the adult ; it was alone and raised its wings when I went near, its parents uttering warning grunts from near by.

23rd. Young one three weeks old and still looking well. The white ear-coverts form conspicuous oval white patches on each side of the head below the eye, giving the bird a very curious appearance at this stage, they are still separated by a broad bare patch on the chin and throat.

25th. Young one out of nest and on the ground; next day it had returned to the nest, where it remained for two or three days longer, and was then seen on a perch at the end of the aviary.

November 2nd. The young bird was now between four and five weeks old and could fly strongly; it struck out with its wings at any bird that came near it.

3rd. Young bird very well, it struck out at all strange birds that approached it, but quivered its wings when its parents came near. Saw the old cock feed it when on a perch; it afterwards followed him about.

11th. Young one nearly six weeks old and very strong, quite three-quarters as large as its parents. General colour slaty-black with strong green reflections on back of neck and mantle; green showing on flanks and also on rump, a little on the wing-coverts; the green seems to be getting stronger each day; breast and crown fuliginous; white cheeks and throat not quite so large in proportion as in the adult and more of a dead white; primaries with brownish edges; wing-coverts still retain yellow down; iris dark; bill dusky-brown, no red visible round the eye, which makes the bird much less noticeable than the old ones; feet dusky pink. It flaps its wings very much when being fed, and utters a low squeak also often after alighting.

After about four months this young bird seems to be practically adult, as it has assumed the plumage of maturity. The bill and skin round the eye have become almost as brightly coloured as these parts in its parents; it seems nearly as large as they, but looks a little slimmer. The tail has not, however, been renewed, and the white area on the throat seems not quite fully developed yet.

(To be continued).

CORRESPONDENCE, NOTES, ETC.

THE GOLDEN-SHOULDERED PARRAKEET.

(Psephotus chrysopterygius.)

SIR,—Having lately acquired two pairs of these beautiful little Parrakeets, I should like to ask whether anyone knows whether they are birds of the last breeding season in Australia; and if so, whether the males acquire their black caps, brown backs, and yellow shoulders, at once; for my two males have these, but are not in *full* colour, as they lack the yellow frontal band and the same colouring round the eyes, besides which the tail-coverts and flanks are very subdued in their tints with regard to the blue in the first instance; and the red in the second.

The females also have their heads of a uniform dull apple-green.

In the male birds, an occasional dull green feather shows on the backs, amongst the deeper brown ones.

I have not had an opportunity of examining any series of skins of these *Psephoti*.

Would their present colouring be that of the first change of feathers after the nestling plumage: and if so, when will the fully adult colouring be assumed?

One would have thought that the difference between the males and females would not have been so very marked, as it is, if their present plumage represents that of immature birds.

If several pairs of these gems of the *Psephotus* family came over to England, how many were landed on the Continent? and when shall we see a like consignment of *P. pulcherrimus*?

HUBERT D. ASTLEY.

THE SEX OF BLACK-CHEEKED LOVEBIRDS.

SIR,—I regret that I am quite unable to assist Mr. Reginald Phillipps and your readers on the above subject.

I have not the least idea as to the sex of any of my Black-cheeked Lovebirds, and I do not believe that any method, except a post-mortem (and I have not yet succeeded in killing any of mine) would prove efficacious. I believe that the iris will vary in colour in one particular bird according to its state of health, age, the light, and other causes.

W. R. TEMPLE.

AVICULTURE AT THE ZOO.

Members who have opportunities of visiting the Zoo should not miss seeing the beautiful little indoor aviary which has now replaced one of the stacks of small cages in the Small Birds' House—very advantageously, for

it is a perfect model for an indoor aviary, with glazed ends to exclude draught, little fountains, and living plants. It has also the advantage of not being too ambitious in design, thus encouraging private aviculturists. There are two compartments, and Tanagers and Sugar-birds are the chief inmates. Conspicuous among these are a recently-acquired male of the Purple Sugar-bird (*Coereba coerulea*) and a pair of Pretre's Tanagers from Cuba (*Spindalis pretrii*), also new arrivals.

F. F.

CORRECTIONS.

In Lieutenant-Colonel Momber's article on "British Birds on the Riviera" (p. 120) the concluding sentence should run: "and the Occhio cotto, *S. melanocephala*, the Sardinian Warbler, which much resembles a dusky-hued Blackcap."

In Dr. A. G. Butler's letter (p. 134) "*Taenioopygia*" should read "*Taeniopygia*," and "face mark" be "face-mask."

Some members seem to have received copies of last month's magazine in which the word "coloured" affixed to the plate on the cover had not been blocked out, and were thus naturally disappointed at getting a plain plate. The plate was, of course, meant to be a plain one, and I did my best to remedy matters when I found the word "coloured" had been put in by mistake. Although there is a plain plate again this time, some coloured ones are in hand, and indeed one was nearly, but not quite, ready in time for last issue.

ED.

POST MORTEM EXAMINATIONS.

RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr ARTHUR GILL, Lanherne, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case, and a fee of 1/- for each bird. If a reply by post is required a fee of 2/6 must be enclosed. Domestic poultry, pigeons and Canaries can only be reported on by post.

TWO LITTLE OWLS. (Mrs. Noble). Both these birds died from concussion of the brain.

CARDINAL. (Miss Dorrien-Smith). This bird died of pneumonia.

Answered by post:

Miss G. Wolfe.

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AVICULTURAL MAGAZINE.

Edited by FRANK FINN.



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H. Goodchild. del et lith.

THE PURPLE SUGAR BIRD:
Cœreba cœrulea.

Huth, imp

Avicultural Magazine,

BEING THE JOURNAL OF THE
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APRIL, 1910.

THE PURPLE AND YELLOW-WINGED SUGAR-BIRDS.

Coereba coerulea and *C. cyanea*.

By FRANK FINN, B.A., F.Z.S., M.B.O.U.

The Purple Sugar-bird, a blue-coat-boy among birds, is the only near relative imported of the now comparatively familiar Yellow-winged Sugar-bird (*Coereba cyanea*). Both species are South American, and are, I believe, known in the feather trade, where they are unfortunately infinitely more familiar than in Aviculture, as "Blue Creepers." In habits they would appear, judging from their ways in captivity, much to resemble the Sun-birds of the Eastern tropics, to which they also greatly approximate in appearance. In fact, did they occur in the Old World, they certainly would be referred to the Sun-bird family.

The Yellow-winged species was received by the Zoological Society many years ago, and a bird lived at the Zoo, in a cage, in the Parrot-house for seven years, from 1890 to 1897. This was one of the specimens in which I observed the annual assumption of female plumage (except on the wings and tail); this was recorded by me in a paper published in the *Journal of the Asiatic Society* (Vol. LXVII., Pt. II., No. 1, 1898), in connection with observations on an analogous change in the Indian Purple Sun-bird (*Arachnechthra asiatica*), but this change of plumage in the Sugar-bird may have been previously described, though there is nothing about it in the British Museum Catalogue.

The Purple Sugar-bird was not received at the Zoo, or imported at all, to my knowledge, till January 20th, 1905, when a female was deposited at the Gardens. She had no companions

of her own species till November 25th of that year, when Mr. A. Pam presented two male specimens from Venezuela. Last month Mr. DeVon had a consignment of both this and the Yellow-winged species, and a male of the former was acquired for the Zoological Society's collection, and may, at the time of writing, be seen in the new indoor aviary in the Small Birds' House, along with the old hen.

Mr. Tinniswood Miller has also got one of this consignment, and has very kindly furnished me with the following notes on his treatment of these birds:—

“I feed the birds on Nestlé's milk (made with boiling water) with a little Mellin's food and sponge cake crumbs in it. He has about a fluid oz. of this and drinks every drop, leaving the sponge cake almost dry at the bottom of the cup; also several grapes (green or black, so long as they are sweet) split open and the stones taken out, and about a quarter of a banana a day.

“I feed the Yellow-winged Sugar-bird in precisely the same way, and have had him since October, 1906; he is still going strong, and at present in perfect condition.

“They are kept in separate cages, sizes: 18in. × 12in. × 16in. high, with a twiggy branch in them. The floor of the cage is covered with blotting paper, that is changed three times a day: morning, mid-day and evening.”

A few notes on the Purple Sugar-bird, as observed in the Zoological Gardens, may not be out of place. The young male brought by Mr. Pam was in a plumage exactly like that of the female, but his legs were of so distinctly yellow a green, or rather, greenish-yellow, that I suspected his sex from this alone, and was not surprised when he proceeded to don his purple plumage. It was, I think, the old cock who showed that this species also has a green undress plumage like the commoner Yellow-winged species, by assuming some patches of green, but he did not live long enough to complete the change. These two cocks both died on the same day; I strongly suspect they fought and killed each other, though the keeper told me there was no evidence of this.

The little hen is still living, and has had as much experience of the Zoo as most birds, having lived in a big flight and glass case in the Insect house, in a small cage in the

Small Bird house, and in one of the outside aviaries there. She has always been well and is very tame. A habit I noticed in her when she first arrived was that of flying up and hovering under the roof of her flight; a gentleman who knew Humming-birds in their wild state told me that this was exactly how they acted, and when the Zoo had theirs I was able to appreciate the truth of this observation. The cocks seem less addicted to this habit, as I can hardly remember seeing any of the three I have watched indulge in it; it may perhaps be a peculiarity of this individual, which is certainly a very robust one.

On the whole I should judge the bird to be quite as easy to keep as its relative, if not more so; and I hope both will become commoner in aviculture. In this connection I should like to suggest that they be known as the Red-legged and Yellow-legged Sugar-birds respectively; the red legs being a far more striking point of *C. cyanea* than the usually-concealed yellow of the wing, while purple is the prevailing colour of both. It is true that the hen *coerulea* has not yellow legs, but then neither is she purple in colour!

For the benefit of those members who may not happen to know the Yellow-winged Sugar-bird, I may say that, in addition to having red legs in both sexes—much brighter in the male, however—it is distinguished by the yellow colouring on the inner webs of the quills, and most conspicuously by the brilliant metallic sea-green cap of the male, the feathers of which are often raised. The female is of a more uniform and duller green than that of the Purple or Yellow-legged bird, and has no buff or blue on the head. This species is about the size of our Willow-wren, the Purple one being smaller, about as big as the Chiffchaff.

I understand that a specimen of the Yellow-winged species has been kept for twelve years at the Hotel Métropole at Brighton, living in a flight in the Winter Garden along with Pekin Robins and other soft-bills, and that its chief food has been honey in the comb, a section being kept hung up for its benefit.

The ease with which these birds are kept in confinement alone suggests the possibility of breeding them, but, so far as I

know, no one has done this, though a good many people must have had pairs of the Yellow-winged or Red-legged species at any rate. In case any one wants to make the attempt, I should strongly advise them not to keep the two species in the same place as I believe sooner or later there would be war to the death between them.

It is true that Mr. Beebe records in his paper on Venezuelan birds, in *Zoologica*, Vol. I., p. 101, having found both species in the same district of Venezuela, but this local association of species which nevertheless do not get on well together often occurs, notably in the case of the Blackcap and Garden Warbler in Britain, and of the Gold-fronted and Blue-winged Green Bulbuls (*Chloropsis aurifrons* and *C. hardwickii*) in India. It is worth noting in this connection that in the Zoo last year the male Blue Wren, then living there, so violently hunted a male Yellow-winged Sugar-bird that the latter had to be removed from that particular flight; no doubt the jealousy of a similar colour, so often observable in birds, came into play here.

In the above paper on Venezuelan birds, by the way, Mr. Beebe records that the female Purple Sugar-bird collected by him "had been feeding on the small seeds of an orchid." A male Yellow-winged Sugar-bird, on the other hand, had fed on small insects.

Sugar-birds are credited with building domed nests; if these two species do so, and construct them at all like those of Sun-birds, the fact would be very interesting and not without scientific value. The hen Purple Sugar-bird is very similar in colouration and form to some of the streaked Eastern Sun-birds of the genus *Arachnothera*, and these build peculiar nests sewn on to the large leaves of plants.

Altogether, these two charming birds are of extreme interest aviculturally, not only for their singular beauty and grace, and the comparative easiness of keeping them, but also in that the breeding of them would be really an achievement to be proud of and likely to add something to our knowledge. I hope some one will soon succeed with one or other of them in this way, and then give us as full an account of their ways as possible.

BRITISH BIRDS ON MIGRATION THROUGH ITALY.

By Lieut.-Colonel G. A. MOMBER.

The following list of British species is selected from a Catalogue, with notes, of the fauna (including marine zoology) and flora of Genoa and district. The Catalogue, published in 1847, seems a conscientious work, at which several experts must have been employed. It numbers 343 species, of which 66 figure in our excerpt. It has been accessible to the public at the Genoa museum and library, and has, therefore, stood open to the criticism and challenge of time. The present selection from the Catalogue is made with the object of showing how, in that district, certain birds are observed at one season of the year, chiefly, or only. Although the scientific names quoted are readily intelligible, Howard Saunder's nomenclature, technical and English, is now added, as also are the Ligurian vernacular names. This rude Doric may perplex even those who can command some Italian, but it is conclusive evidence of the bird being known to the natives. It should be remembered, in this connection, that the implacable proclivities for bird-hunting of the Southerner must inevitably produce some knowledge of species. Without the wholesale catching formerly carried on in Heligoland, and without Gätke to record its results, our Northern bird knowledge would lack many of its facts. The regular exposure for sale of birds on the markets of Italian towns must help to manifest the prevalence or non-occurrence of a species, and confirm the observations of chasseurs and naturalists. In Italy, too, a small bird is often not what, popularly, it would be in England, just a small bird. In Italy, it is a delicacy of varying degree. The Genoa cooks, when purchasing Ortolans, are careful to avoid inferior substitutes, for the dealers have a trick of subcutaneously injecting olive oil to give the plucked bodies of other Buntings an Ortolan-like appearance. In the great birding centres of Northern Italy, the restaurant gastronomes will not put up with Tits and Finches when they can titillate their palates with Warblers.

In considering the course of migration, it is necessary to discriminate between the passage of a bird through a district and its arrival at its summer haunt, or departure therefrom. Whilst on migration, it is for the most part a skyfarer, hardly observed but by those who know where to look for it, and do so.

But, on arriving at its nesting quarters, it at once proclaims its presence to all, if a song bird; and, in any case, its expected appearance is soon noticed by those whom long winter months have deprived of welcome sights and sounds. The actual break-up for the autumn journey, again, is less perceptible. The birds have long been silent, during their moult, and, except in the case of the Swallow tribes and a few others that ostentatiously band themselves together, they unobtrusively vanish like the morning mists.

It seems probable that birds generally are more observable on their autumn, than on their vernal, travels. The journey South is pursued less directly, in more leisurely fashion, with more halts for food and rest, and perhaps at lower elevations, than the urgent rush North to the nesting haunts. Moreover, the numbers should be greater in autumn.

Yet, of the kinds picked out for our list as oftener seen at one particular season, it is in spring that the majority are observed, roughly forty-seven kinds as against nine seen in autumn. Of course, there is to be reckoned with the fact that on the landing side of a wide sea like the Mediterranean, exhausted birds often pitch on the first available land, and fall an easy prey to the fowler. The writer has watched tired Quail, Hoopoes, and Sandpipers flying low from the sea alight on the slopes by the Italian sea-shore. But if this fact contained an explanation, how is it that the bulk of the Genoa Catalogue names is recorded on both passages? that any species is noticed more in autumn? that so many of the kinds observed in spring are the strong-flying ducks and waders, whilst of the nine autumn-preponderating varieties five are small weak Passerines? These five are: Richards' Pipit, Meadow Pipit, Reed Bunting, Marsh Bunting, and Citril Finch. The remaining four comprise Long-eared Owl, Rook, Ring-dove and Stock-dove.

Only young birds are seen of: Snow Bunting, Red-throated Diver, Goosander, in winter; Common Scoter and Golden-eye, in spring; Rosy Pastor, Marsh Bunting, Glossy Ibis, in autumn.

The inference to be drawn from our table, therefore, would be that these species pass through the Bay of Genoa respectively more on one annual migration than on the other; hence possibly that they follow fixed, different routes, and that certainly Liguria is rather more favoured as a route on the journey North.

GENOA CATALOGUE.

II. SAUNDERS' NAMES.

<i>Falco rufipes</i>..	.. Farchietto di pè rusci	.. <i>Falco vespertinus</i>	.. Red-footed Falcon	.. Rarer some years than others, in spring.
<i>Falco subbuteo</i>	.. " scïo	.. " <i>subbuteo</i>	.. Hobby	.. Oftener seen in spring than in autumn.
<i>Otus otus</i> ..	.. Testa de gatto	.. <i>Asio otus</i> ..	.. Long-eared Owl	.. More abundant on autumn passage than in spring. Nests.
" <i>brachyotus</i>	.. Onea testa grossa	.. " <i>accipitrinus</i>	.. Short-eared Owl	.. Passes in May and Oct.
<i>Corvus frugilegus</i>	.. Crovo	.. <i>Corvus frugilegus</i>	.. Rook	.. Common in autumn and during severe cold.
<i>Coracias garrula</i>	.. Serenùn	.. <i>Coracias garrula</i>	.. Roller	.. Passes in spring, rarely in autumn. Sometimes nests.
<i>Caryocalactes</i> —	.. Sciacca nissene	.. <i>Nucifraga caryocalactes</i>	Nutcracker ..	.. Was very abundant in Sept., 1845. Always announces a hard winter.
<i>Oriolus galbula</i>	.. Garbè ..	.. <i>Oriolus galbula</i>	.. Golden Oriole	.. Very common in spring, rarer in autumn.
<i>Pastor roseus</i>	.. Merlo reusa ..	.. <i>Pastor roseus</i>	.. Rose-coloured Starling	In spring, adult specimens; in autumn, a few young ones.
<i>Accentor alpinus</i>	.. Grixiùn	.. <i>Accentor collaris</i>	.. Alpine Accentor	.. Common in winter.
<i>Anthus richardii</i>	.. Ciarla grossa..	.. <i>Anthus richardii</i>	.. Richard's Pipit	.. A few seen in late autumn but believed to nest.
" <i>pratensis</i>	.. Si si da proù ..	.. " <i>pratensis</i>	.. Meadow Pipit	Common on autumn migration and also stationary.
<i>Alda brachydactyla</i>	.. Terainha	.. <i>Alda brachydactyla</i>	.. Short-toed Lark	.. Passes in spring, not seen in autumn.
<i>Motacilla lugubris</i>	.. Biancola de spalle neigre	<i>Motacilla lugubris</i>	.. Pied Wagtail	.. A few seen in spring, never occurs in autumn

H. SAUNDERS' NAMES.

GENOA CATALOGUE.

<i>Motacilla rayi</i>	.. Gianetta cù de setrùn ..	<i>Motacilla rayi</i>	.. Yellow Wagtail	.. In spring. Rather uncommon.
" <i>melanocephala</i>	Balainha da testa ueigra	" <i>melanocephala</i>	Black-headed Wagtail	.. Passes in spring.
<i>Saxicola rubetra</i>	.. Simma-costi ..	.. <i>Saxicola rubetra</i>	.. Whinchat ..	.. Passes in spring.
<i>Salicaria arundinacea</i>	.. Ruseignen da canne	.. <i>Acrocephalus streperus</i> ..	Reed Warbler	.. Common in spring, rare in autumn.
" <i>luscinioides</i>	.. " da sarxi	.. <i>Locustelle luscinioides</i>	.. Savi's Warbler	.. A bigger passage in spring than in autumn.
" <i>palustris</i>	.. " de padü	.. <i>Acrocephalus palustris</i> ..	Marsh Warbler	.. In spring. Rare.
" <i>turdina</i>	.. " lumbardo	.. " <i>turdoides</i>	Great Reed Warbler	.. Abundant in April, rare in autumn.
<i>Lusciola cyanecula</i>	.. Cua rossa a peto bleu	.. <i>Cyanecula suecica</i>	.. Red-spotted Bluethroat	Passes in spring. Rare in autumn.
<i>Loxia curvirostra</i>	.. Becco torto ..	.. <i>Loxia curvirostra</i>	.. Crossbill ..	.. An uncommon passage bird in summer.
<i>Fringilla citrinella</i>	.. Iügao corse ..	.. <i>Chrysomitris citrinella</i>	Citril Finch ..	.. Rather rare. In autumn.
<i>Emberiza palustris</i>	.. Siaùn ..	.. Not in H. Saunders' List	Marsh Bunting	.. In spring rather uncommon. In autumn some young ones.
" <i>melanocephalus</i>	Nuttuan de levante	.. <i>Emberiza melanocephalus</i>	Black-headed Bunting..	Of uncertain passage, in spring.
" <i>schoeniclus</i>	.. Sia da canne..	.. " <i>schoeniclus</i>	.. Reed Bunting	.. Numerous in autumn.
<i>Plectrophanes nivalis</i>	.. Sia da neiva ..	.. <i>Plectrophanes nivalis</i>	.. Snow Bunting	.. Accidental in winter, and only young specimens.
<i>Rallus aquaticus</i>	.. Gallinetta grossa	.. <i>Rallus aquaticus</i>	.. Water Rail ..	.. Abundant in spring, and some are found at every season.
<i>Gallinula pusilla</i>	.. " mezanha	.. <i>Porzana parva</i>	.. Little Crake..	.. Passes in spring.
" <i>bailloni</i>	.. " piccinha	.. " <i>baillonii</i>	.. Baillon's Crake	.. Passes in spring.

GENOA CATALOGUE.		H. SAUNDERS' NAMES.	
<i>Glareola pratincola</i>	.. Pernixotto de mà	.. <i>Glareola pratincola</i>	.. Pratincole ..
<i>Charadrius pluvialis</i>	.. Testunotto de fiume	.. <i>Charadrius pluvialis</i>	.. Golden Plover ..
.. <i>cantianus</i>	.. Giacòt da testa russa	.. <i>Aegialitis cantianus</i>	.. Kentish Plover ..
<i>Vanellus squatarola</i>	.. Marsen spilorso	.. <i>Squatarola helvetica</i>	.. Grey Plover ..
<i>Tringa hypoleucos</i>	.. Spilorso da scoeggio	.. <i>Totanus hypoleucos</i>	.. Common Sandpiper ..
.. <i>pugnax</i>	.. .. da mülì	.. <i>Macheles pugnax</i>	.. Ruff ..
.. <i>subarquata</i>	.. .. grixiùu	.. <i>Tringa subarquata</i>	.. Curlew Sandpiper ..
.. <i>canutus</i>	.. .. russo	.. .. <i>canutus</i>	.. Knot ..
.. <i>minula</i>	.. Pignuotto ..	.. .. <i>minula</i>	.. Little Stint ..
<i>Totanus calidris</i>	.. .. du cò-cò	.. <i>Totanus calidris</i>	.. Redshank ..
.. <i>ochropus</i>	.. .. du cù gianco ..	.. <i>ochropus</i>	.. Green Sandpiper ..
.. <i>stagnatilis</i>	.. Favè grixo ..	.. Not in H. Saunders' List	Marsh Sandpiper
.. <i>glareola</i>	.. Femmina du cù gianco ..	.. <i>Totanus glareola</i>	.. Wood Sandpiper ..
<i>Anas clypeata</i>	.. Becco ciatto ..	.. <i>Spatula clypeata</i>	.. Shoveller ..
.. <i>fusca</i> ..	.. Annia scüa ..	.. <i>Oedemia fusca</i>	.. Common Scoter ..
.. <i>rufina</i> ..	.. Ciuffo russo ..	.. <i>Netta rufina</i>	.. Red-crested Pochard ..
.. <i>acula</i> ..	.. Cua lunga ..	.. <i>Dafla acuta</i>	.. Pintail ..

.. Common in May.
 .. Commoner in spring than in autumn.

.. In spring. Rather rare.
 .. Passes in spring.

.. Abundant in spring, rarer in autumn.

.. Ditto.

.. Very numerous in May and June.

.. Rather rare in spring, still rarer in autumn.

.. Common in May, rare in autumn.

.. Seen in May, rarer in autumn.

.. Passes in spring.

.. Ditto.

.. Seen in May, rarer in autumn. Some nest.

.. Passes in spring, and a few young ones have been seen in autumn.

.. The young not rare in spring. Adults very rare.

.. Rather rare in spring.
 .. Common in spring.

GENOA CATALOGUE.		H. SAUNDERS' NAMES.	
<i>Anas fuligula</i>	.. Moetta du siffio	.. <i>Fuligula ferina</i>	.. Winter and spring.
.. <i>querquedula</i>	.. Garganella ..	.. <i>Querquedula circia</i>	.. Common in April and May.
<i>Anser clangula</i>	.. Quattr-occhi ..	.. <i>Clangula glaucion</i>	.. Young ones common in spring.
<i>Ciconia nigra</i>	.. Sighengna neigra	.. <i>Ciconia nigra</i>	.. Very rare in adult plumage. Some young at seasons of passage.
<i>Ibis falcinellus</i>	.. Tantalo ..	.. <i>Plegadis falcinellus</i>	.. Passes in spring. Only young seen in autumn.
<i>Ardea stellaris</i>	.. Perdigrornii grixo	.. <i>Botaurus stellaris</i>	.. Numerous in spring. In autumn rarer.
.. <i>nycticorax</i>	.. " negro	.. <i>Nycticorax griseus</i>	.. Ditto. Casual in autumn.
.. <i>minula</i>	.. " piccin	.. <i>Ardeella minuta</i>	.. Common in spring. Rare in autumn.
.. <i>comala</i>	..	.. <i>Rissa tridactyla</i>	Arrives in late spring.
<i>Larus tridactylus</i>	.. Ochii bianco	.. Kittiwake ..	.. Abundant in Feb. and March; also nests.
.. <i>melanocephalus</i>	.. " testa neigra	.. <i>Larus melanocephalus</i> ..	Abundant in spring, and some at every season.
.. <i>capistratus</i>	..	Not in H. Saunders' List Seemingly a phase of <i>L. ridibundus</i> ..	
<i>Colymbus septentrionalis</i>	Colimbo ..	.. <i>Colymbus septentrionalis</i>	Young ones commonly pass in winter, adults very rarely.
<i>Mergus merganser</i>	.. Smurgo ..	.. <i>Mergus merganser</i>	.. Passes in cold winters, chiefly young ones.
.. <i>serrator</i>	.. " bianco	.. <i>serrator</i>	Abundant some years, in cold winters.

GENOA CATALOGUE.		H. SAUNDERS' NAMES.	
<i>Tringa temminckii</i>	.. Spilorsin ..	.. <i>Tringa temminckii</i>	.. Temminck's Stint .. Common in May. In autumn rare.
.. <i>maritima</i>	.. " scüo	.. " <i>maritima</i>	.. Purple Sandpiper .. Passes in spring.
<i>Columba palumbus</i>	.. Colasso ..	.. <i>Columba palumbus</i>	.. Ring-dove .. } Nest in mountains and
.. <i>oenas</i>	.. Cumbo sarvaego	.. " <i>oenas</i>	.. Stock-dove .. } are very numerous on autumn passage.

Rare in winter and spring

The following short table shows the irregular migrants observed at Bordighera, about 100 miles W. of Genoa, by an Italian gentleman living there, who is an enthusiastic ornithologist:—

Garden Warbler ..	..	<i>Sylvia hortensis</i>	..	Scarce in spring, abundant in autumn.
Wheatear ..	..	<i>Saxicola cinanthe</i>	..	Abundant in spring, scarce in autumn.
Ortolan ..	..	<i>Emberiza hortulana</i>	..	Common in May.
Linnnet ..	..	<i>Linota cannabina</i>	..	Commoner in spring.
Ring-dove..	..	<i>Columba palumbus</i>	..	} Large flights in autumn.
Stock-dove	..	.. <i>oenas</i>	..	
Stone Curlew ..	..	<i>Oedienemus scolopax</i>	..	Fairly common on seashore March and April.
Golden Plover ..	..	<i>Charadrius pluvialis</i>	..	Fairly plentiful in spring.
Water-rail ..	..	<i>Rallus aquaticus</i>	..	In spring common; in autumn rarer.
Land-rail ..	..	<i>Crex pratensis</i>	..	Common in spring.
Garganey ..	..	<i>Querquedula circia</i>	..	Ditto.
Sniew ..	..	<i>Mergus albellus</i>	..	Immature birds common in spring. Adults rare.
Red-breasted Merganser	..	.. <i>serrator</i>	..	.. " " autumn.
Kittiwake ..	..	<i>Larus tridactylus</i>	..	Often seen in spring.
Levantine Shearwater ..	..	<i>Puffinus yelkouanus</i>	..	In some years common in early spring.

Of those birds appearing on both lists, the observations corroborate each other, except in the case of *Mergus serrator*, in which they amplify each other.

RARE IMPORTATIONS AND POSSESSIONS.

By HUBERT D. ASTLEY.

I have lately received a SHORT-TAILED PARROT (*Pachynus brachyurus*) which is the size of a Meyer's Parrot or of a Pionus, but resembling a miniature green Amazon in appearance.

The head is of a sea-green colour, which brightens into grass-green all over the body. The larger wing-feathers are finely edged with yellowish-green or yellow, but the whole effect of the bird is a green one. At the shoulders there is a very small patch of dull wine-red, and the same colour is found at the base of the outer tail-feathers. The beak, which is rather large for the size of the bird, is greenish horn-colour; the feet greenish grey, and the eyes dark brown with an outer circle of orange-red. The tail is very short, barely protruding beyond the points of the wings.

This little parrot is exceedingly tame and confiding, coming on to my hand (or anyone else's!) and allowing one to stroke and handle it.

It promises not to be lacking in intellect, and perhaps it will learn to speak. A gentler bird I never saw, and its looking like a pygmy Amazon, gives it some fascination all its own. Ecuador and Northern Brazil is, I believe, its home.

I fancy it is very rarely imported; I have never seen one in the London Zoological Society's collection, but that does not follow that it has not been represented there!

When I first received this bird, he was in a dirty condition, and he looked as if he was about to depart into the plane of spirits, there to prepare for another incarnation, in who knows what species of bird's body? But warmth, biscuit sop boiled in water, milk, and barley water in three equal portions, and some quinine and 'Cinnamal' in his drinking water, pulled him round. It was a pleasure to see the drooping wings and ruffled feathers tightening up, the eyes growing brighter, the whole body becoming smaller in appearance. Warmth is the chief restorer.

A female GOLDEN-SHOULDERED PARRAKEET which was growing thinner and thinner, (a new importation) became so ill at last that she sat at the bottom of the cage in a tottering state, neither eating nor drinking, the eyes half closed, the breast

like a knife. I put some drops of port wine, with sugar melted in it, down her throat, an operation by no means easy with that small rounded bill and tiny mouth; but what proved better still, I put her in a hot-house where the temperature is between 70° and 80° by day, and not under 65° by night. The next day her feathers were tighter, and she was on a perch, and by the afternoon she was eating. In the fortnight, though still lacking her normal flesh, she was looking as well as any bird could look. The moist heat had restored the poor bird to life.

*Bye-the-bye! These Golden-shouldered Parrakeets, which have been imported lately, are not the same as illustrated in Mr. Seth-Smith's "Parrakeets"; they lack the yellow frontal band and eye-patch, and the area of yellow on the shoulder is, I think, larger. The female has a paler coloured crown than that of *Psephotus chrysopterygius*. If the title were not too lengthy, they should be called the "Black-capped Golden-shouldered Parrakeet," and the other species (or ? variety) the "Yellow-fronted." They seem to come from a different part of Northern Australia. I find that the black-capped variety has apparently been imported on at least three occasions. Mr. Blaauw has had it before this year, and also Mr. Fasey.

Another rare importation which is in my possession is a pair of partridges (?) from Senegal. Perhaps *Ptilopachys fuscus*. These birds are, let us say, rather smaller than a Virginian Colin, and resemble Guans in miniature, or even hen Bantams of the Duckwing game variety. The tails are carried like Guan's and are the shape of a hen Bantam's; the necks have hackle feathers, yellow brown with whitish edgings. The same colouring is carried over the upper breast and along the flanks. The general colouring of the upper parts is dull brown with a tinge of rufous in it. A red skin encircles the eyes, and the legs and feet are also red. If they are the species I suppose them to be, they are called "Rock Pheasants." I should like to hear from any fellow-fanciers whether they know them, or anything about them. †

I have also received what I believe to be a TROPICAL SEED

* This was written before any matter had been published. It is since decided that they are to be called "Hooded" Parrakeets *Psephotus cucullatus*. H.D.A

† No doubt *Ptilopachys fuscus*, as suggested; the Zoo have one. ED.

FINCH (*Oryzoborus torridus*), a small Grosbeak-like bird, whose colouring is black on the head, neck, and upper parts; with a small patch of white on the wings, and the underparts rich deep chestnut. The large Grosbeak bill is black, and the legs and feet deep lead-colour.

This species is said to have a melodious song, and comes from Parà. It is the size of a Mannikin. The tail is broad and rounded. This Tropical Seed Finch has been acquired, I fancy, before now, by some of our members.

Of other rarities, which I have possessed for some time, my male RACQUET-TAILED PARROT from the Celebes, which I have had for over two years, is in perfection of plumage and condition, only marred by one wing having been severely sprained at the shoulder, and consequently not lying tightly down on the body. This bird's colouring is *most* lovely, with his emerald head, on the crown of which is a pure French-grey patch, in the centre of which lies a brilliant pink spot, whilst the 'old-gold' at the lower part of the neck at the back is a very uncommon bird colour.

The racquets of the tail remain in beautiful condition from one autumn to another, and as far as I can ascertain, grow out unsheathed in quills until the more solid portion of the feather begins. It would be interesting to know whether the Racquet-tailed Parrots commenced originally to develop these appendages as the Motmots are apparently now doing; for Mr. Beebe of New York has made the discovery that the Motmot does not deliberately, as has hitherto been supposed, pluck off the shafts from the two central tail-feathers, leaving the racquets, but that those shafts which drop off are merely helped by the bird preening its feathers, because just in that spot they are abnormally weak. Therefore, the Motmot, as regards his racquets, may be going through a transitional stage, and later on the racquets may grow perfectly developed with the shafts above them already bare and ready-made! The same thing *may* have happened with the Racquet-tailed Parrots. *Chi lo sa?* as the Italians say.

My Racquet-tail is probably the only one in Europe, and up to a short time ago the same might have been said of my PURPLE-BREASTED PARROT (*Triclaria cyanogaster*) which I have had in perfect health and magnificent condition for some five years

but I understand that one has been lately acquired by the authorities of the Berlin Zoological Gardens.

My parrots keep in far better condition if they are syringed with water, and allowed some exercise out of their cages.

I have never succeeded in obtaining another male *Agapor-nis taranta* [Abyssinian Love-bird], but the female has wintered in an outdoor aviary, and lays eggs.

Another rarity is a pair of *Calornis metallica*; given me, very kindly, by Sir Walter Ingram. Starling-like birds from New Guinea and thereabouts; the male resplendent in iridescent dark purples and greens, with an eye "which looks like a ruby"—and a narrow pointed tail; the female with subdued tints of the male on the upper parts, whilst the lower are of a pearly-white with narrow black longitudinal streaks.

These birds, unlike true Starlings, build a bulky pensile nest of fibre, etc. The male has a Starling-like song.

My FAIRY BLUE-BIRDS (*Irena turcosa*)—called, in the Malay Peninsula, Coffee birds, owing to their habit of assembling to eat the berries on the coffee bushes, when they are ripe—have passed the winter in a semi-open outdoor aviary, and look gorgeous; the male, who like the *Calornis*, has an eye of flashing red, resplendent in shining upper parts of cobalt satin, and under-parts of blackest velvet.

But I must write more on these subjects on a future occasion.

DURATION OF LIFE IN CAPTIVITY.

By Dr. A. G. BUTLER.

It has been questioned whether birds live longer in captivity than when at liberty, and I think there can be no doubt, apart from the risks which a bird runs from destruction by enemies of all kinds when free, that cage and aviary birds when properly looked after attain to a considerably greater age.

In the *Ibis* for 1899, pp. 19-41, Mr. J. H. Gurney published a valuable paper entitled "On the Comparative Ages to which Birds live," and it has often occurred to me that if each aviculturist who has kept many species and preserved a record of the duration of their lives would publish the same in a single article,

it would be possible to prove conclusively that a life of moderate restraint was more beneficent than one of savagery.

It has often been asserted by those entirely ignorant of the devotion of bird-lovers to their pets, that it is cruel to keep birds in cage and aviary. Undoubtedly it is cruel to keep a bird in an enclosure in which he has scarcely room to turn round; but nobody with any affection for a bird would dream of keeping it in a cage in which it could not use its wings, bathe, and, in fact, obtain healthful exercise.

I began to keep birds about the year 1883, and have never confined any bird permanently in a small cage; and, beginning with one measuring about 18 inches cubic for a single small bird, I have gradually adopted an enclosure of about twice that measurement. When I first received my English Jay, then only two or three months old, I at once built a cage for him measuring 5 feet 5 inches in length, 3 feet 3 inches in height, and 2 feet $1\frac{1}{2}$ inches from front to back, thus enabling him to use his wings freely: the result, combined with nutritious food from the first is, that I do not suppose there is another bird of its size or condition in this country either tame or wild.

That birds are happy in captivity is evident from the reluctance which they exhibit, after a year or two's association with a considerate owner, to being set at liberty; hanging about their cage or aviary, or at least the neighbourhood, for days, and not infrequently voluntarily returning to captivity. On several occasions when my cages have been accidentally left open, the inmates have disregarded the open door and made no attempt whatever to come outside. Is it conceivable that this would occur if their lives were irksome?

A bird which is happy, lives healthily—taking sufficient exercise, bathing freely, living in pure air, and receiving good food, has a better chance of prolonging its life than its wild relatives, which have to struggle for their existence with numerous foes, accidents of many kinds, and adverse weather; and although (like all aviculturists) I have lost many newly-acquired birds from weakness and disease contracted before they came into my possession, I think that those which were healthy enough to recover have shown a fair average for longevity.

I think it was about 1902 that Mr. E. W. Harper imported specimens of the GREY-WINGED OUZEL, of which he gave me a fine male: this bird is still in splendid health and condition, its age at present being about eight years I suppose; it remains to be seen how much longer it will live.

SHAMA (received through the post November 1903); still in perfect health—over six years in my possession.

BLUEBIRD purchased 1889, bred in 1890, died 1899. The cock bird therefore lived with me about ten years.

MOCKING-BIRD purchased 1892, died 1896, only four years, but a second very old bird given to me subsequently lived with me about eleven years, dying in 1909.

PEKIN NIGHTINGALE purchased 1888, died 1898; a female still living was purchased about 1901.

RED-VENTED BULBUL purchased early 1892, died November 1895—by no means a long life.

WHITE-EARED BULBUL presented 1887, died end of 1892—about five years.

CHINESE BULBUL purchased June 1899, still living in good health—getting on for its twelfth year in my possession.

COLLARED JAY-THRUSH purchased January 1900, died January 1907—seven years: its cage was none too large,—about 3 feet by 2 and 2 feet 6 inches in height.

CHINESE WHITE-EYE. I have no exact record of the date when my birds were given to me, the female lived from three to four years.

SUPERB TANAGER. The longest record I have is from March 1899 to September 1901; the birds generally come to hand in rough condition and seem delicate.

ARCHBISHOP TANAGER. Presented end of 1903; one male still living in perfect condition—over six years so far.

SCARLET TANAGER. Two males purchased in 1897; both living and healthy at present after thirteen years in a large cage.

MADEIRAN CHAFFINCH. Presented 1895, the male died in 1898, and the female in 1899; not much of a record!

LESSER and WHITE-THROATED ROCK-SPARROWS. Presented in 1898, died in 1903—five years in a flight-cage.

GREY-HEADED SPARROW. Purchased 1895, died 1900.

SAFFRON-FINCH. I kept few records of this species, but a bird bred between this species and a Canary in 1898 lived ten years, and doubtless many of my pure Saffron-finches have done the same.

ST. HELENA SEED-EATER, purchased 1889 or 1890; the male lived until late in 1898—eight to nine years.

GREY SINGING-FINCH. I have no exact record of the purchase of my specimens, but I know I secured a pair about 1900, the hen of which lived until near the end of 1908.

ALARIO-FINCH. A male purchased in 1892 died in 1900, having been over eight years in my possession.

CHINGOLO SONG-SPARROW. I have no record of my earlier specimens of this species, but Mr. Teschemaker sent me a pair bred by himself in October 1907, one of which is still living.

PILEATED FINCH. A hen received in exchange in the winter of 1887-8 died in December 1893, having been in my possession about six years.

GREEN CARDINAL. I have no exact record of when I purchased the male of this species; the female I imported in 1893; but I had them in an indoor cage for about two years before I turned them into an outdoor aviary to breed in 1895; thus assuming that they were both secured in 1893, the hen died in 1896 and the cock in 1897, which gives from three to four years.

YELLOW-BILLED CARDINAL. Of four purchased in 1903, one lived until August 1909, six years in captivity.

I have no notes of the number of years for which my RED-HEADED and RED-CRESTED CARDINALS lived, but I don't think any of them exceeded from three to four years: my VIRGINIAN CARDINALS certainly did not live so long, all being destroyed by heat-apoplexy.

TROPICAL SEED-FINCH. Presented November 1907 and still living.

WHITE-THROATED FINCH. I had a male for about ten years.

FIRE-RED FINCH. Presented in November 1907 and still living.

REDDISH FINCH. I have no exact record, but my bird certainly lived from eight to ten years.

GUTTURAL FINCH. A hen lived with me about ten years.

The *Spermophilæ* generally are long-lived in captivity, and although a LAVENDER-BACKED FINCH died after two years I have reason to believe that it was killed by my Tropical Seed-finch.

BLACK-HEADED LINED FINCH. Presented November 1907 and still living.

LAVENDER FINCH. About four years.

Unfortunately I have not recorded the date of purchase on the labels attached to my Waxbills, but I am sure of the following: COMMON AMADUVADE, eight to ten years. GOLD-BREASTED WAXBILL the same. GREEN AMADUVADE the same. RED-BROWED WAXBILL, six to eight years. GREY WAXBILL eight years. CRIMSON-WINGED WAXBILL only two or three years at most.

CORDON-BLEU. A male purchased in 1896 was living at the beginning of 1908, having been in my possession close upon twelve years,—a very good record for a delicate little bird!

PINTAILED NONPAREIL. A very delicate species, but a hen lived with me from 1906 to 1909, nearly three years.

GOULDIAN FINCH. A male lived from 1896 to 1902, six years: birds born in 1905 are still living.

MASKED GRASSFINCH. Purchased 1905; still living.

LONG-TAILED GRASSFINCH. Purchased 1906; still living.

PARSON FINCH. I have no record, but am sure that I have kept this species for quite five years, probably longer.

ZEBRA FINCH. I believe this to be naturally a short-lived bird, and do not suppose that, in its wild state, it lives more than three years, but I have kept unpaired cocks for fully eight years and they are still living.

BICHENO FINCH. Three to four years.

CHERRY-FINCH. Five years—1892-1897 is my longest record.

I have kept the AFRICAN SILVER-BILL for years in succession, as also RIBBON-FINCHES and RED-HEADED FINCHES, but have hardly a record to guide me as to the number of years. The females of the two latter species never seem to live, at the outside, more than two or three years, being extremely subject to egg-binding. Of a pair of RED-HEADED FINCHES purchased in 1905, and three males presented in 1906 for which I have twice

purchased hen Ribbon-finches as mates, every hen has died egg-bound, but all the cocks are still living, having been in my possession from four to five years nearly.

SHARP-TAILED FINCH. Of specimens purchased in 1894, one lived until October 1900—over six years.

COMMON SPICE-BIRD. Of birds presented in 1902, one lived to 1907—five years.

PECTORAL FINCH. Of birds bought in 1905, one lived to April 1909—nearly four years.

CHESTNUT-BREADED FINCH. Of specimens purchased in 1894, three died in 1896, two in 1897, and the last I believe lived on until 1899 or 1900, but unfortunately no labels are attached to most of the specimens: still it may safely be assumed to have lived in confinement five years.

YELLOW-RUMPED MANNIKIN. Purchased in 1906, several still living.

WHITE-HEADED MANNIKIN. I have already recorded the fact that a pair formerly in my possession died after seventeen and eighteen years in captivity.

BLACK-HEADED MANNIKIN. I purchased half-a-dozen of this species in 1897, and am sure that they lived five or six years, but on account of their abundance in the market had none of them skinned, and preserved no record of the exact date of their death. I have found the allied THREE-COLOURED MANNIKIN rather a short-lived bird.

JAVA SPARROW. Bred in 1896 and 1897; two birds still living—at least thirteen years.

MAGPIE MANNIKIN. Purchased 1896, the cock died August 1900, the hen two years later—six years in captivity.

BRONZE MANNIKIN. Specimens purchased in 1894 were living in 1899, so that we can safely record five years for this species.

Most of my Whydahs were kept at a time when I had not thought of recording the exact dates of their purchase and death, but I have noted the Combassou as long-lived.

PARADISE WHYDAH. Purchased 1895, died 1909—fourteen years: a record even for a hen of this species I think; the males have generally lived from three to four years.

LONG-TAILED WHYDAH. Received in exchange April 1907; still living, having been nearly three years in my possession.

NAPOLEON WEAVER. Purchased 1888, died 1900—twelve years in my possession.

GRENADIER WEAVER. Presented September 1906, and still living after nearly $3\frac{1}{2}$ years.

ORANGE WEAVER. Specimen purchased 1888 or 1889; lived to 1898 and 1899—ten years.

RED-BILLED WEAVER. Purchased 1894, still living—over fifteen years in my possession.

BLACK-HEADED WEAVER. Purchased 1895; died 1900.

NIGERIAN BLACK-HEADED WEAVER. Purchased 1895, died January 1910; over fourteen years in my aviaries.

BAYA WEAVER. Purchased about 1892, died about 1900—seven to eight years.

MADAGASCAR WEAVER. Purchased 1890: one of these lived until 1902—twelve years.

COMORO WEAVER. Purchased 1891; died 1898—seven years.

I unfortunately kept no record of the dates when most of my various Meadow Starlings died: I know that *Agelæus frontalis* lived for some years, but both *Dolichonyx oryzivora* and *Leistes superciliaris* were short-lived; the first living less than a year, and the second I think between two and three years. *Agelasticus thilius* I believe died in less than a year, but *A. humeralis* (?) after ten years in captivity was given to me in 1900 and is still living; its present age must be (at least) close upon 21.

SILKY COW-BIRD. Imported 1893, given away in exchange 1898; I have not heard how much longer they lived.

I believe my MILITARY TROUPIALS (De Filippi's) did not live more than about three years.

COMMON HANGNEST. Purchased 1899 and still in excellent health, having been in my possession nearly eleven years; a race of the latter given to me in December 1906 is also still in splendid condition.

I only kept my MALABAR MYNAH a year or two and then exchanged it for another bird, so I cannot say how long it lived. My Common and Greater Hill Mynahs were not long-lived.

CRESTED MYNAH. I bought a by no means young bird in 1896 and it died in 1906, having been over ten years in my possession.

SATIN BOWER-BIRD. Purchased 1889, died 1907; eight years in my possession.

BLUE-BEARDED JAY. Purchased early in 1895; died late in 1909; over fourteen years in my possession.

I have no record to show when my MONGOLIAN LARK died, but I had it for some years, probably four or five.

My SULPHURY TYRANT only lived about a year, but it was kept in too small a cage, about 18 inches cubic measure.

Of the few Parrots I have kept I have no very definite records; my Yellow-fronted Amazon was probably about forty years old when it was given to me, and lived with me about five years, and my Grey Parrot died after six years through eating a Solanum berry. Lovebirds I found tolerably long-lived, but I am afraid my notes on the duration of life in these and other species which I have kept have been neglected.

MARTINICAN DOVE. Purchased and acquired by exchange in May 1898, female lived till September 1902—over four years.

BRONZE-NECKED DOVE. Purchased June 1897, died about 1901, but I have no exact dates: about four years.

I had no means of telling how long my Half-collared Turtle Doves lived; as, after keeping them for two years, I exchanged them for other birds, and one, at least, of those subsequently received as of that species proved to be a Deceptive Dove; the latter died three years after it came into my possession.

NECKLACED DOVE. A cock purchased in 1894 died in 1898—four years. SPOTTED DOVES received in 1900 I sent to the Zoological Gardens six or seven years later, so cannot say how long they lived in captivity.

SENEGAL DOVE. Presented August 1902; still living after seven-and-a-half years in my aviaries.

BAR-SHOULDERED DOVE. Purchased 1896; escaped about four years later and never recaptured.

My PEACEFUL DOVES only lived about two years.

ZEBRA DOVE. Bought 1895, died 1901; about five and a half years.

DIAMOND DOVE. Purchased 1903; still living after six-and-a-half years.

STEEL-BARRED DOVES. Bought in 1899, lived until 1903—seven years; the cock being killed by two others purchased that year, which I sent to the Zoological Gardens about three or four years later.

PASSERINE DOVE. My hens all died egg-bound, but a cock bought in July 1899 is still in excellent health after more than ten-and-a-half years.

HARLEQUIN DOVE. Only lived two years with me.

TAMBOURINE DOVE. Presented August 1902 and still living, after over seven-and-a-half years in my aviaries.

BLUE-SPOTTED DOVE. Purchased about 1903, still living—about six-and-a-half years.

EMERALD DOVE. Purchased with the preceding and still living.

MAIDEN DOVE. Purchased in 1905, died 1908; a trifle over three years, but it is unquestionably a delicate species.

AUSTRALIAN GREEN-WINGED DOVE. Purchased December 1896; the cock died in March 1909; over twelve years.

BRONZE-WINGED PIGEON. Purchased 1897; still living after twelve years and eight months in my aviaries.

AUSTRALIAN CRESTED PIGEON. Purchased December 1896, exchanged for other birds in September 1903, so cannot say how long they lived beyond the six-and-three quarter years for which I possessed them.

WELLS' DOVE. Received in exchange May 1898; the hen lived until early in 1906; nearly eight years.

BLEEDING-HEART PIGEON. Purchased August 1897; the cock died December 1900; only a little over three years.

NICOBAR PIGEON. Purchased July 1897; the hen died January 1902, the cock about Midsummer 1904—about seven years.

Of the birds which I have kept and retained a note respecting the duration of their lives, the following have attained to the highest longevity:—

Merula bouboul. About eight years: still living.

Cittocincla macrura. Over six years: still living.

Sialia sialis. About ten years.

Mimus polyglottus. About eleven years : an old bird when received.

Liothrix luteus. Ten years.

Pycnonotus sinensis. Nearly twelve years : still living.

Garrulax picticollis. Seven years.

Tanagra ornata. Over six years : still living.

Rhamphocœlus brazilus. Thirteen years : still living.*

Sycalis flaveola. Ten years probably.

Serinus flaviventris. Eight to nine years.

„ *leucopygius*. About eight years.

Alario alario. Over eight years.

Paroaria capitata. Six years.

Spermophila albigularis. About ten years.

„ *nigro-aurantia*. Eight to ten years.

„ *gutturialis*. About ten years.

Sporæginthus amandava. Eight to ten years.

„ *subflavus*. Ditto.

Stictospiza formosa. Ditto.

Estrilda cinerea. Eight years.

Uræginthus phœnicotis. Nearly twelve years.

Poephila gouldiæ. Six years.

Tæniopygia castanotis. Eight years : still living.

Uroloncha acuticauda. Over six years.

Munia maja. Seventeen and eighteen years.

„ *oryzivora*. Thirteen years.

Amauresthes fringilloides. Six years.

Steganura paradisea. Fourteen years.

Pyromelana afra. Twelve years.

„ *franciscana*. Ten years.

Quelea quelea. Over fifteen years : still living.

Hyphantornis capitalis. Over fourteen years.

Ploceus baya. Seven to eight years.

Foudia madagascariensis. Twelve years.

„ *eminentissima*. Seven years.

Agelasticus humeralis. Over twenty years : still living.

Icterus vulgaris. Nearly eleven : still living.

Acridotheres cristatellus. Over ten years ; old when I purchased it.

* One bird was evidently not young when purchased.

Ptilonorhynchus violaceus. Eight years.

Cyanocorax cyanopogon. Over fourteen years.

Turtur senegalensis. Over seven years: still living.

Geopelia striata. About five and a half years.

„ *cuneata*. Six and a half years: still living.

Columbula picui. Seven years.

Chamæpelis passerina. Ten and a half years: still living.

Tympanistria tympanistria. Seven and a half years: still living.

Chalcopelia afra. Six and a half years: still living.

„ *chalcospila*. Ditto.

Chalcophaps chrysochlora. Over twelve years.

Phaps chalcoptera. Twelve and three-quarter years: still living.

Calœnas nicobarica. About seven years.

For the benefit of those aviculturists afflicted with “oöphobia,” I may mention that all my birds which will eat soft food have had egg daily in their mixture since they came into my possession.

In the present article I have not mentioned British Birds, but my English Jay has been many years in my possession and, with a little trouble, I could doubtless discover in what year it was given to me; but some of our members who have restricted their studies to our native birds could doubtless give us a useful paper on the longevity of their own pets and I therefore have not taken British Birds into account.

STRAY NOTES ON INDIAN BIRDS.

By FRANK FINN, B.A., F.Z.S.

(Continued from page 130.)

EASTERN BAILLON'S CRAKE. *Porzana pusilla*.

I noticed that this little bird, like the Coot and Purple Moorhen, stretches its wings both together when taking this muscular exercise, instead of one at a time as other birds do.

PURPLE MOORHEN. *Porphyrio poliocephalus*.

This species puffs out its white under-tail-coverts when courting or when angry, in both sexes. It also claps its wings back to back at times. Like other *Porphyrios* I have watched, it loses all its quills at once when moulting.

COOT. *Fulica atra*.

An old cock of this species I kept moulted in winter, like the Indian resident ducks; no doubt resident individuals of the Coot usually do this.

COMMON CRANE. *Grus communis*.

This Crane moults all its quills at once, though the Crowned Cranes of Africa (*Balearica*) seem not to do so.

STONE-CURLEW. *Ædicnemus scolopax*.

A specimen I kept cast at least one pellet during two days. It swallowed—when this was half put in its mouth—a gecko lizard about four inches long. It used, in alarm when approached to lower and wag its tail.

GREAT STONE-POLOVER. *Ædicnemus recurvirostris*.

A very tame bird of this species, reared from a chick by the person who sold it to us, was in the Calcutta Zoo. It used to follow people round the Waterfowl aviary, and lower and wag its tail like the above species, evidently not from fear in this case. It also, like the tall Australian Stone-plover (*Burhinus grallarius*), has the habit of occasionally rushing about with wings and tail spread, as the European bird has been seen to do when wild.

LARGE INDIAN PRATINCOLE OR SWALLOW-POLOVER.

Glareola orientalis.

I did not see any pellets cast by a specimen of this bird which I fed on cockroaches.

SOCIABLE LAPWING. *Chettusia gregaria*.

I found captive specimens of this bird would readily eat boiled rice, though not soaked paddy. Though they also fed on cockroaches and shrimps, I saw no pellets cast by them.

EASTERN GOLDEN PLOVER. *Charadrius plumialis*.

In confinement this species would eat the fruit of Tipari (*Physalis*). It bores for worms, although short-billed, and is very pugnacious when confined.

BLACK-WINGED STILT. *Himantopus candidus*.

In captivity this species will eat soaked canary-seed even when provided with maggots, and the seed is fairly well digested; it appears to agree well with all waders which will eat it.

CURLEW. *Numenius arquata*.

I saw, in 1899, a Curlew pass over the Calcutta Zoo (low

down as to be easily identifiable) on July 20th, a curious date for a winter visitor as this is in India; it was possibly attracted by the call of our captive bird.

BLACK-TAILED GODWIT. *Limosa belgica*.

Blandford, quoting Jerdon, gives the bill as dull orange, reddish at the base, dusky at the tip; I have found it pink, with the tip black. He also says it is commonly sold as Woodcock in the Calcutta Bazaar; but I seldom saw it there, and never heard it so called there. My friend Mr. C. M. Inglis told me he had kept one for months on paddy only.

BAR-TAILED GODWIT. *Limosa lapponica*.

Of a pair in the London Zoo in 1901, the male came into summer plumage, but not the female. They were in the small waders' aviary in the Diving birds' house.

WOOD SANDPIPER. *Totanus glareola*.

In the winter of 1900-01 I got a pallid or semi-albino specimen of this bird in the Calcutta Bazaar.

GREEN SANDPIPER. *Totanus ochropus*.

This species wags its tail like the Common Sandpiper, which the last-named bird does not.

(*To be continued*).

NESTING OF THE WHITE-THROATED PIGEON.

Columba albigularis.

By T. H. NEWMAN, F.Z.S., M.B.O.U.

(*Concluded from page 164.*)

On December 12th, a second young one was discovered just hatched. I had been away for some time, and the birds had not even been noticed sitting. This time the nest was placed on some faggots under the glass shelter; it was about seven feet from the ground. Again only one egg apparently being laid, and this is most probably the normal number; the bird is so *Carpophaga*—like that one might expect only one egg to be laid at a sitting; also Mr. W. R. Ogilvie-Grant, *Ibis*, 1906, p. 503, writing on the very closely-allied Grey-throated Pigeon (*C. griseigularis*) mentions a single egg being procured; but it does not do to be

too sure of this point, as we know that the White-crowned Pigeon (*C. leucocephala*) sometimes lays one and sometimes two at a clutch. A pair that I have nested twice last year, each time laying only one egg; then, in the only two instances that I know of the Rufous Pigeon (*C. rufina*) breeding in captivity, only one egg was produced at a sitting; but we read in *Novitates Zoologicæ*, Vol. XVI., p. 261, that Mr. S. Venturi found a single nest of *C. rufina sylvestris*, (which only differs from typical *rufina* by having the basal portion of the tail blackish) with *two* eggs in it.

This second young one also grew well, and first left the nest on January 7th. One would hardly expect a bird from New Guinea, whose natural nesting season seems to be about June, to rear young in such weather as we have had—frost, snow, and rain,—but they may well be pardoned for failing to recognise the late wet summer as our dry season; so perhaps were expecting better weather when the winter came on. When this youngster left the nest it was well fledged, the back of the neck, rump, and especially the triangular patch between the shoulders being of a brilliant metallic green. I feel sure that this young one was brighter coloured than the first one; the wings were black with hardly any green, white on throat not fully developed, as the chin and space round the base of bill were still bare of feathers; breast vinous brown; a few bits of yellow down on the wings and breast; iris dusky brown; bill brownish red; feet dusky grey with a pinkish tinge; skin round eye greyish purple. It is now eight weeks old and has been independent of its parents for some time; I believe it always roosts out in the open, whatever the weather may be. The iris is now changing colour, and the green on the mantle is very intense; I notice there is a single line of green-tipped feathers running obliquely across each wing, from the bend of the wing to the centre of the back, it is curved and is parallel to the edge of the mantle; it is curious that there should be this one row of adult-looking feathers across the otherwise black wing.

One of the reasons which finally led to the White-throated Pigeon being placed among the *Columbinæ* instead of with the *Carpophoginæ* was the food, that it had twelve instead of fourteen rectrices; it is therefore somewhat significant that my youngest

bird has thirteen tail feathers, seven on the left side and six on the right. Will it have only twelve if it lives to become adult?

In addition to New Guinea and its neighbouring Islands the White-throated Pigeon is found from the Halmahera and Amboyna groups to the Louisiade Archipelago, and has recently been recorded from Vella Lavella, Solomon Islands.

REVIEW.

ZOOLOGICA: SCIENTIFIC CONTRIBUTIONS OF THE NEW YORK ZOOLOGICAL SOCIETY FOR DECEMBER 1909 AND JANUARY 1910.

In these two numbers Mr. C. W. Beebe has published three important articles, the first of which, entitled "Ecology of the Hoatzin" is of considerable interest for all Ornithologists; dealing as it does with the history of the bird, its distribution, general appearance, parasites, food, nidification, enemies, and its reputed evil smell.

Mr. Beebe has had exceptional opportunities for studying this strange bird in Venezuela and British Guiana, and has taken numerous photographs (reproduced in his article) illustrative of its actions and nidification in a wild state.

With regard to the reputed disagreeable odour Mr. Beebe says:—"When skinning or dissecting one of these Hoatzins, one notices the faintest of musky odors, not at all unpleasant, and indeed perceptible only when the attention is directed to it. Our specimens were certainly most inoffensive in this respect, and the flesh of one which we cooked and ate, while it was tough, was as clean and appetising as that of a Curassow."

The article concludes with a complete Bibliography of the species. A second article in the same number is entitled "An Ornithological Reconnaissance of North-eastern Venezuela" and will be most welcome, no doubt, to systematic Ornithologists, while containing many field-notes of interest to Aviculturists.

In the January number is an article on "Racket formation in tail-feathers of the Motmots" which will serve to clear up the disputed question as to whether or no these birds actually produce the rackets themselves by biting off a part of the web to within about an inch of the end. It will be remembered that in the

Ibis for 1895 Dr. Sclater, in a footnote to a review of Newton's "Dictionary of Birds," observes—"There has been a specimen of *Momotus subrufescens* living in the Zoological Society's Gardens since May 6th, 1890. It reproduces its moulted tail-feathers in a perfect state every year. The keeper in charge of it says that he has *never* seen it nibble out the webs of the central rectrices (as it ought to do), but that the pieces disappear gradually—he does not know how."

Mr. Beebe seems never to have questioned that the spatules were produced by the bird, and at first he tried an experiment with a view to discovering whether the outer feathers were used as a guide when the bird was denuding the central rectrices; he pulled out the latter and cut straight across the second and third shorter pairs of tail feathers; the middle rectrices when reproduced were denuded at the same point as when the other feathers were entire. Microscopic examination of the untrimmed feather shows congenital weakness of the barbs at the place where denudation takes place: in some cases the weak web seems to adhere to the corneous sheath of the feather (which would account for Newton's belief that in some Motmots the tail-feathers are originally developed in a spatulate form) but in the majority of cases the weakly attached barbs are broken away when the bird is preening its tail-feathers, and are no more evidence of a taste for decoration in the Motmot than is the development of the nuptial plumage in many birds, by the breaking away of the tips of the feathers of the prenuptial plumage.

There is a fourth short paper in the January part on "Three cases of a supernumerary toe in the Broad-winged Hawk."

A. G. BUTLER.

CORRESPONDENCE, NOTES, ETC.

HEN CHINESE QUAIL ASSUMING MALE PLUMAGE.

SIR,—I think the following may be of some interest to readers of the *Avicultural Magazine*, and am, therefore, sending it to you.

About last November year I got two pairs of Chinese Quail. During the summer of that year both the males died of pneumonia, and I then turned the two females out together, and it is of one of the latter that I wish to write.

This bird has now, during the last three weeks, began to assume the plumage of a male bird, and has, at the time of writing, assumed almost entirely the plumage of an ordinary adult male.

I have never heard of such a case occurring before with Chinese Quail, though I am aware that it sometimes occurs in other game birds. Perhaps some of our members could say whether they have known of a similar occurrence with these birds.

GERALD W. RATTIGAN.

THE BLACK-HOODED PARRAKEET.

Psephotus cucullatus, North.

SIR,—Since I wrote the notes on Parrots at the Crystal Palace Show, which were published in the last number of the Magazine, the Zoological Society has acquired a pair of the recent consignment of what were thought to be Golden-shouldered Parrakeets. The pair at the Palace struck me as being different to the specimens I had seen of *P. chrysopterygius*, and since the arrival of a pair at the Zoological Gardens I have looked into the subject somewhat carefully.

P. chrysopterygius possesses a very distinct frontal band of yellow, this colour also surrounding the eye. The crown of the head is covered by a black patch, which fades away into the grey of the back. In the recently-imported birds, however, there is no yellow frontal band whatever, the black of the crown extending forward to the bill, over the lores and surrounding the eyes. I thought at first that these might belong to a form described in the P.Z.S. for 1908 by Professor Collett as *P. dissimilis*, but this bird has a frontal band of *brown*.

I have, however, discovered the black-fronted birds in a note by Mr. North in "The Victorian Naturalist," dated Feb. 6, 1909, where he describes his inspection of a cage-full of these birds in Sydney, which had been captured in the Northern Territory of South Australia, some 200 miles South-East of Port Darwin. He gives a complete description of the birds, which agrees absolutely with those which have recently reached this country, and proposes for them, should they prove to be new, the name of *Psephotus cucullatus*, the Black-hooded Parrakeet.

I think there is no doubt that this is a distinct form and that Mr. North was justified in describing the species as new.

Mr. F. E. Blaauw tells me that he received some of these birds last summer, doubtless those that Mr. North saw on their arrival in Sydney.

I cannot at present detect any difference in the female from that of *P. chrysopterygius*.

D. SETH-SMITH.

WHAT BIRD?

SIR,—I bought a pair of unknown birds some time ago and have not been able to name them. I am writing to you to know if you can help me. Came over from S. America, are either Grosbeaks or Buntings,

most likely the latter. Have the flat head with feathers like a cap, colour sort of pale greeny brown, sparrow marked wings, white breasts and throats and belly and a broad belt of same colour as body across the chest, stout built birds and very vicious, kill all other birds. Feed on mixed seed, millet, and like insects and soft food as well.

I wonder if they are the South American Sparrow.

If you can let me know in next issue of *Avicultural Magazine*, I shall be obliged. I sent a description to another member, but he could not find out what they were, and I want to sell them, they are such vicious birds. I have a pair of them, and the hen is a fainter edition of the cock bird.

E. WARREN VERNON.

[The description is too incomplete for certainty; but, if the cap is black and if there is a white eyebrow-stripe (neither of which points are noted in your description) I should say that your birds are D'Orbigny's Tanagers, and therefore neither Grosbeaks nor Buntings. The general olive-green, or, as you say, greeny-brown colour and pectoral belt, and white under surface, certainly seem to indicate that species; but I don't understand the description "Sparrow marked wings" it is too vague. Do you mean that they are crossed by white bars? The true Sparrows are an Old-World group, though the English House-Sparrow has been introduced into America. D'Orbigny's Tanager is said to have black wings edged with olive and with the bend of the wing yellow. A. G. BUTLER.]

THE SOCIETY'S MEDALS.

Medals appear to be due to the following Members:—Mr. W. E. Teschemaker, for breeding the RUFOUS-BACKED MANNIKIN (*Spermestes nigriceps*); GIANT WHYDAH (*Chera procne*); BLUE GROSBKAK (*Guiraca cyanea*); JERDON'S ACCENTOR (*Tharrhaleus jerdoni*) and BLACKCAP. Mr. T. H. Newman, for the WHITE-THROATED PIGEON (*Columba albigularis*); DECEPTIVE TURTLE-DOVE (*Turtur decipiens*); to Mr. W. A. Fasey for the BLUE-WINGED GRASS PARRAKEET (*Neophema venusta*); to Mr. H. D. Astley for the PILEATED PARRAKEET (*Porphyrocephalus spurnus*);* to Her Grace the Duchess of Bedford, for HUTCHINS'S GOOSE (*Branta hutchinsi*) and the SARUS CRANE (*Antigone antigone*); and to Mr. W. T. Page for the GREY-WINGED OUZEL (*Merula bouboul*).

If any Members know of any previous instance of any of these birds being bred in this country, they are requested to communicate the fact.

* As Mr. Fasey also claims a medal for this bird, the case will come before the Council at their summer meeting, after which all medals will be sent out.—ED.

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AVICULTURAL MAGAZINE.

Edited by FRANK FINN.



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—1910.—

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All MSS. for publication in the Magazine, Books for Review, and Private Advertisements should be addressed to the Editor, Mr. FRANK FINN; 35, St. George's Road, Regent's Park, London, N.W.

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H. Goodchild. del et lith.

RED-FACED MOUSE-BIRD.
Colius erythromelon.

Hutchins.

Avicultural Magazine,

BEING THE JOURNAL OF THE
AVICULTURAL SOCIETY.

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MAY, 1910.

THE RED-FACED MOUSE-BIRD.

Colius erythromelon.

By FRANK FINN, B.A., F.Z.S., M.B.O.U.

The Mouse-birds or Colies (*Coliidae*) are a very peculiar and isolated family of birds; the species are few, all much alike in form and size—about that of a Sparrow, except for the long tail—and confined to Africa south of the Sahara. They are very arboreal in their habits; in the small experience I had of them in East Africa, I never saw one on the ground, nor have I ever heard of their going there when wild. Their feet are very peculiar, the first and fourth toes turning either forward or backward, so as to give a firm yet changeable grip; yet their leg-joints seem very weak, for they straddle a great deal, and squat down on their stomachs like a bird whose feet are sore.

They generally sleep hanging up in a bunch, but not head down like the Hanging-parrakeets or Bat-parrots (*Loriculus*), the head being up at the level of the toes—feet upwards, but not head downwards, in fact. One would expect them to nest in holes, as they are rather parrakeet-like in some ways, but they really build open nests of twigs in a bush or tree. They are easy subjects for aviculture, and of particular interest, because, in spite of their ugly crawling movements and their dirtiness, they are worth breeding from a scientific point of view, as hardly anything seems to be known about their young, except that these are of the helpless type, and have down of the very scantiest character, so that they are practically naked. In all Mouse-birds, unfortunately, the sexes are alike, so that it is hard to select pairs. Their food consists chiefly of fruit and buds, with a few insects; so that they are easily suited with artificial food.

Two species, both South African, are in the market at present, the Striated Mouse-bird (*Colinus striatus*), and the Red-cheeked (*C. erythromelon*) figured in our illustration; from this the Striated may be easily distinguished by having the bill black and grey and the eye-cere black, while the feet are dull dark red instead of bright coral, and the plumage is dull drab with fine pencilling.

For the following interesting notes on the much prettier Red-faced species, I am indebted to our member Major B. R. Horsbrugh:—

“I had many of this species brought in to me by trappers at both Potchefstroom (Transvaal) and Bloemfontein (O. R. C.) but I found them dirty, greedy, and expensive to keep, so that one day I released all I had except a pair that I brought home in 1906 and presented to the Zoo.

They are perfectly easy to keep, any fruit does them for diet, and they are not in the least quarrelsome with other species. They have a very swift flight indeed, and look very pheasant-like as they shoot along with their long thin pointed tails carried stiffly behind them. The tail-feathers are very hard and wiry indeed, and I do not think it has been observed before that their skins are quite extraordinarily thick and tough, so that they can hardly be torn by the hands in a fresh-killed bird.

They are interesting birds in some ways and I can confidently recommend them as inmates of a mixed aviary in this country; but they will not stand cold at all, and die at once if subjected to severe weather.”

This species has been observed to line its nest with wild cotton in seed, while the Striated uses green leaves; the latter seems to lay pure white eggs, those of the Red-cheeked being mottled and streaked with red.

Besides the above two species, the following have been exhibited at the London Zoological Gardens:—

WHITE-BACKED MOUSE-BIRD (*Colinus capensis*); distinguished by a white black-edged patch on the back, followed by a maroon one; South African. This species nested in 1892 in one of the large waggon-shaped flight cages in which these birds

were then kept in the London Zoo Parrot-house, two of them sitting on several eggs in the same nest, as stated in the *Ibis* for that year.

CHESTNUT-BACKED MOUSE-BIRD (*C. castanonotus*); also with a maroon patch on the back, but no white above it; West African.

BLACK-NECKED MOUSE-BIRD (*C. nigricollis*); also West African; very like the Striated, but with black forehead and chin.

OUR SOCIETY AND ITS WORK.

By Dr. A. G. BUTLER.

Our Editor has asked me, as one of the original members of the Avicultural Society, to sketch our history and the work done by our body since its inception: and although I feel sure that others of our members would be far better able to do justice to this subject than myself, I cannot be so churlish as to refuse to do my best to enlighten certain outsiders who are seeking for information.

It was in the summer or autumn of 1894 that Messrs. H. R. Fillmer and C. S. Simpson of Brighton communicated with Mr. Reginald Phillipps and myself with a view to founding a Society for the study of British and Foreign Birds, both in freedom and captivity. These gentlemen visited me at the Natural History Museum at South Kensington and briefly discussed the objects of the Society, the means by which those objects should be attained, and lastly the title by which it should be known.

It was decided that, in order to encourage and assist one another in bird-study the members must have some means of intercommunication, in addition to that afforded by the post; and, as it would be impossible for us to hold general meetings, it was agreed that a Journal should be published in monthly parts to which the members should be invited to contribute; thus not only recording their own successes and failures, their views on housing and feeding, with other matters of mutual interest, but at the same time bequeathing the results of their study for the benefit of their successors.

As regards the title, the term "Fancy" was at once rejected as objectionable, and as applicable chiefly to those variations from species produced by the agency of man; "Ornithology" was decided to be too general a term; I therefore suggested that, as we proposed to deal with birds much as gardeners did with flowers, and as the latter study was known as "Floriculture" and "Horticulture," we might surely use the term "Aviculture": this term was eventually agreed upon, and our body issued its first modest volume of 132 pages on November 1st, 1894.

Unfortunately the list of members which appeared in Volume I. of the *Avicultural Magazine* included only fifty-two individuals, and as at that time the entrance fee was but half-a-crown and the subscription five shillings, it was not surprising that it was impossible to afford illustrations either for this or the second volume; although, by the end of 1895, the membership had increased to 175, among the accessions to our body being some of our most successful breeders.

With over two hundred members at the end of 1896, it was possible to afford four coloured plates by scientific artists, as well as one or two cuts to illustrate Volume III.; and, from that time, not only was the success of the Society assured, but there was a marked improvement in the character of the work done by the members: by the end of 1897 the membership numbered two hundred and sixty-one, a very strong argument in favour of the attractiveness of good coloured illustrations!

With the completion of Volume V. the annual subscription became 7/6; the entrance fee however still remained 2/6. At that time there was no increase in the number of plates, the membership not having varied greatly since 1897.

The magazine continued gradually to increase in size and importance; so that Volume VIII. the last of the first series, contained no less than 318 pages of text with seventeen illustrations, including seven coloured plates; and the expansion was most strongly marked in this volume, which inaugurated the very successful editorship of Mr. D. Seth-Smith: during the entire reign of this energetic ruler the Magazine greatly prospered, as indeed we have every reason to believe it will do in the hands of his successor.

Of the very valuable work done by our Society there can be no question. Not only have numerous species been bred for the first time by many of our members and thereby a knowledge of the life-history of the species has been completed, but in several cases disputed points have been satisfactorily cleared up. Mrs. Johnstone's successes in breeding Fraser's Touracou have thrown considerable light on the relationship of the Touracous to the Hoatzin and to the Cuckoos, and Mr. Seth-Smith's studies in breeding Hemipodes and Tinamous have established the polyandrous character of these birds, a fact already indicated but not cleared up in the case of certain species by Lieut. Hauth in Germany.

The zeal of some of our wealthy members has been the means of bringing to light new and interesting species of birds which might otherwise have remained unappreciated for many years to come, and even an insignificant member like myself has been permitted to clear up a few points of synonymy, as in the cases of *Quelea russi*, *Paroaria cervicalis* and *Petronia albigularis*, the first two being mere plumages, but the third at least a distinct race.

The anatomical articles by Mr. Pycraft and those by Prof. C. O. Whitman and others of our American friends are all of considerable scientific importance.

Lastly, in many cases where young have not been reared in captivity, it has been possible to secure young plumages, correctly describe the eggs for the first time, and to deposit specimens in the National Collection for the benefit of cabinet-workers.

Then, apart from the good work which we know to have been done, there are the ideas and suggestions which occur from time to time to the student of living birds; many of them perhaps very ridiculous, but some of them perchance capable of leading up to truth, and therefore worth recording: it does not answer to despise the day of small things or the feeble glimmerings of light emitted from small minds, for behold how great a matter a little fire kindleth!

The creation of our Society has produced a need for works dealing with aviculture, and thus has kept some of us pretty

busy; and the wish to give of our best to the public, has doubtless stimulated us to close and careful study, with the result that both we and our readers have benefited by increased knowledge of our subject.

Most of the coloured illustrations in the *Avicultural Magazine* have been carefully copied from living birds, and thus the natural actions of the different species and the correct outlines of their bodies have been faithfully reproduced: this is often quite impossible in the case of illustrations drawn from dried skins, some of which are mere caricatures.

Although for some years past the annual subscription to our Society has been ten shillings and the entrance fee half-a-guinea, the value of the Magazine has so greatly increased both as regards bulk, interest and the number of its illustrations that the increase of its membership to close upon 450 is by no means surprising; the only marvel is that more bird-lovers do not join our ranks.

NOTES ON MY VISIT TO AUSTRALIA.

By DAVID SETH-SMITH, F.Z.S., M.B.O.U.

(Continued from page 154.)

BRISBANE.

Although the time of my departure was drawing near, I was most anxious if possible to make an expedition to Brisbane, as I was well aware that some of the best and rarest of the fauna which I hoped to obtain, had its home in Queensland. I had moreover been in correspondence with a live-stock dealer named Beard in Brisbane from whose letters I judged that a visit to that town might result in some very valuable additions to my collection of living creatures.

The easiest way to travel to Brisbane, providing the weather is calm, is by steamer, but the weather has a way of being very rough round the Australian coast just at the time when one has decided to travel, and the coastal boats, although excellent in many ways, are somewhat noted for their capacity for rolling. The N.S.W. Government having, moreover, generously granted me a pass on their railways, I decided without hesitation to travel by train.

The train journey occupies about thirty hours, the distance being nearly 600 miles. I left Sydney at 5.10 p.m. on February 19th, arriving in Brisbane about 11 p.m. the following evening. Some of the scenery is most beautiful, especially the first part as one approaches the Hawkesbury River and obtains numerous glimpses of large expanses of water surrounded by forest and dotted with islets. Much of the country consists of rocky ground, thickly covered with bush, which is absolutely useless for cultivation, but ideal as a sanctuary for the native fauna.

The greyish foliage of the Eucalyptus is now and then relieved by a patch of feathery whiteness—a gum-tree in full flower. The same trees do not bloom every year, but every year some trees are in bloom, and apparently at almost all times of the year, and these flowering trees provide an abundant supply of food for the honey-eating birds of which Australia possesses so many species. This inaccessible country also unfortunately provides ample shelter for the introduced fox, which is becoming a curse by its ravages not only amongst the native mammals and ground birds—the Lyre-bird and Mallee-bird in particular—but amongst the flock-owners' lambs.

At Newcastle, the colliery town of New South Wales, we had to turn out of the train and snatch a hurried dinner, for the Government has not yet seen the advantage of providing dining accommodation on its trains. We reached Wallangarra on the Queensland Border the following morning, and here passengers must change, as the gauge of the Queensland railways is narrower than that of the older state, which has adopted the standard English gauge of rail.

On the Queensland side the railway crosses the Darling Downs, winding in and out among the hills, and much of the scenery is very beautiful.

I saw several Wallabies as they hopped away at the side of the line, and on one occasion a splendid pair of Australian Bustards or "Wild Turkeys" rose from the plain and flew for perhaps half a mile, alighting in a field still within view of the train.

We passed through country which is badly infested by the prickly pear, this plant nearly covering the ground in places

and spoiling the pasture land. The Emu, I am told, is accused of distributing the seed of this plant, and in consequence these fine birds are being killed off in many districts.

Arriving in Brisbane late at night, I put up at an Hotel close to the Botanical Gardens, and through my open window heard the weird squeakings of the numerous Fruit-bats or "Flying Foxes" which fed on the fruit of the Moreton Bay fig trees, of which many fine specimens were growing within a stone's throw. The noise of hundreds of frogs in these gardens, which every night set up a regular concert, will also remain long in my memory.

Mr. Beard, the animal dealer, had promised to procure me what he could, and I took an early opportunity of calling upon him. In his shop, however, I saw nothing but domestic pigeons and rabbits, which was not encouraging. He assured me, however, that he could procure me some very good animals, and that he already had some of the beautiful Parry's, or, as they are locally called "Pretty-faced" Wallabies, and some Brush Turkeys for me.

He told me that he knew of a pair of the Beautiful Parrakeet (*Psephotus pulcherrimus*) in captivity which he hoped to be able to secure. This species appears to be very local, and he knew of a place where a pair regularly bred each year. It is locally known as the "Elegant Parrakeet."

A story he related to me of the Squatter Pigeon (*Geophaps scripta*) presents an aspect of the character of some of the Australian so-called sportsmen which is anything but sportsman-like. Three years before my visit these Ground Doves had been very numerous in the neighbourhood, and he received no less than 400 of them from the catchers. He offered them to the Sydney dealers, who declined them; but a party of pigeon shooters bought the entire lot, all of which they used in shooting matches! When one remembers how rarely this, the handsome Partridge Bronzewing, is seen in this country, and how glad private aviculturists and European Zoological Gardens would be to obtain specimens, one can only be horrified at this wanton destruction.

The Brisbane Botanical Gardens are very well laid out

with many kinds of beautiful tropical and semi-tropical vegetation such as Palms of all kinds and masses of giant Bamboo. The beautiful scarlet Hibiscus was in full flower, and I watched with much delight a lovely blood-red Honey-eater (*Myzomela sanguinolenta*) sucking at the flowers and flying from one to another, almost putting the brilliant flowers themselves in the shade by his brilliance.

There was a small collection of animals in these gardens, but nothing of special interest except perhaps a Banksian Cockatoo, which I, with some difficulty, persuaded the authorities to let me take home. Emus, and a nice collection of Wallabies, always attracted the public, and it struck me what a splendid Zoological Garden could be run in so ideal a climate, and in a country containing so many interesting forms of animal life.

As I was looking at these creatures one afternoon, I heard overhead the cries of Lorikeets, and looking up saw two large flocks of Swainson's Lorikeets, probably each containing some fifty birds or so, flying very rapidly, the bright sunshine showing a blaze of colour on their brilliant undersides. So common are these birds in the neighbourhood, that I was able to buy a cage full, containing fifty birds, for the sum of thirty shillings. I landed thirty-one of these birds safely and they made a fine show during the summer in the London Zoo.

The Sacred Kingfisher was always to be found at the side of a pond surrounded with bamboos, a spot which also was the feeding ground of several of the elegant Pied Grallinas.

Brisbane has a very fair museum, where I saw a collection of Queensland animals that was extremely good numerically, but the labelling was by no means faultless and many of the cases were very badly arranged.

Brisbane hopes also to have a Zoo. one day ; at least a few enthusiasts are trying their best to get one. I saw the proposed site, which was good, and I only hope they may have their Zoo. and teach the people of Brisbane something of the animals their country contains, of which the average settler is woefully ignorant.

(To be continued.)

NESTING OF THE RED-WHISKERED BULBUL.

(Otocompsa jocosa).

By W. E. TESCHEMAKER, B.A.

I have found this quite an interesting species and have noted several points in connection with its nesting habits and sexual distinctions which would be worth discussing if space permitted, but the last two accounts I contributed to our Magazine were so long that I must on this occasion be more brief.

Although I have had various individual Bulbuls at one time or another I never tried my hand at breeding them until last summer. Nearly all the Bulbuls are dangerous in a mixed community, but *O. jocosa* appears to be a somewhat notable exception. It is distinctly a sociable bird, and I think might be safely trusted in any aviary. One of mine struck up a close friendship with a Magpie Tanager, and did not seem the least afraid of the latter's formidable hooked beak and hawk-like yellow eye. Several pairs will nest in close proximity in the same aviary and, as we shall see in the course of this narrative, two hens will even share a nest.

Bulbuls seem to offer a promising field to the would-be medallist, because, although there are more than fifty species of this family in India alone (if we include local races), I believe only one species besides *O. jocosa* has fully reared young in this country, namely, *P. haemorrhous*. Yet they seem generally anxious to breed, and at least three species (the Syrian, Philippine and White-eared) have incubated.

The subject of our present notice ranges from the Himalayas to Assam and throughout Burma and S. China, and has at least two local races:

- (i.) *O. emeria*, from Bengal.
- (ii.) *O. fuscicaudata*, from Southern India.

The former of these is the most frequently imported, and is distinguished by the white tips of its tail-feathers and by the dark necklace being broken in the centre. There was a large importation of this species in 1909, which were retailed by the trade at the not extravagant figure of three shillings and sixpence each. The first thing that struck one on looking through this consignment was that they ran in two distinct sizes. I

selected two of each size and will not go further into the matter than to say that I fancy that the two large birds were a pair and the two small birds were two hens.

First nest. Although all birds try to hide their nesting operations from us, they are as a rule singularly unsuccessful, because the aviarist can generally tell by a mere glance whether a bird is going to lay, has laid, is incubating, or has hatched. Now and again I go through the aviaries with a good big stick in case any bird should be "playing possum." I bush-whacked the Bulbuls' aviary (which by the way was only 17ft. by 10ft.) early in June and only succeeded in beating out two Bulbuls: a hunt for corpses produced no results, and therefore I could only conclude that the other two Bulbuls were actually sitting. I examined the shrubs carefully, but they contained no nests. I then gave each shrub a thorough shaking—and the mystery was solved. A dead branch of a *Cupressus* was leaning against the wire netting, and between the two and not attached in any way to either was the nest, containing six eggs and with the two missing Bulbuls sitting side by side.

Capt. Perreau tells me that our friend Whiskers is regarded in his own country as a bit of a fool: he falls unsuspectingly into the most elementary trap and builds his nest in the most conspicuous and ill-chosen places. It is evident to me however that, although Whiskers may not be born wise, he acquires wisdom with great facility. I never saw a better hidden nest than this, and what especially impressed me was that its constructors must have realized that their only chance of success was to conceal it from the malevolent eyes of the pair of White-crested Jay Thrushes in the same aviary, because the third, fourth and fifth nests were built in ordinary situations. Perhaps someone may ask how can any stupid species be abundant in a land of hawks, snakes, crows, cats, mongooses and fowlers. I expect our friend Whiskers succeeds by perseverance. If he loses a nest he does not sit in sackcloth and ashes: he sets to work at once and starts another. It must be understood that Capt. Perreau is responsible for the above estimate of the intelligence of Whiskers: personally I have found him most wary, secretive and suspicious. In 1904, and again in 1905, I had communal nests of the Indian

Avadavat, the two hens incubating and feeding the young jointly and in perfect amity, and the young were fully reared, but this nest was not so fortunate: in a few days' time the eggs were thrown out and broken. They were all fertile and had been incubated apparently about a week.

Second nest. I now removed the Jay Thrushes and Pekin Robins and left the four Bulbuls in undisturbed possession of the aviary. I do not seem to have made any notes about the second nest, and all I can remember about it is that the eggs were laid in the same nest and again thrown out after a few days' incubation. The eggs are smaller than one would expect, and are closely covered with small red and purplish spots, closely resembling one type of egg of the House-sparrow and of much the same size (90 mm \times 62 mm). The usual clutch appears to be three.

Third nest. Another nest was now commenced in the very top of another shrub about five feet from the ground. These Bulbuls are said to build small neat nests, but those I have seen have been very loosely compacted of hay and unlined, probably owing to want of suitable materials. Once more three eggs were laid and incubation commenced on the 14th July. As it was evident that the two (or more) hens were jealous, I tried hard to ascertain which birds had constructed this nest—but in vain. They were so extraordinarily secretive that I could never get a glimpse of them whilst pairing or building. I therefore determined to remove all but the one actually incubating, and even this proved a very difficult matter because she (or he) would always slip away into the thickest covert, when put off the nest, and thus elude identification. However, I at last ascertained that it was the largest Bulbul which was sitting, and I at once removed the other three. Two young were hatched on the 23rd, after the unusually short period of nine days' incubation. The young were quite naked and grew with astonishing rapidity. On the 25th, after a night of continuous rain, the nest collapsed, but I fixed it up again and lashed it firmly in place, for which assistance Whiskers seemed very grateful. On the 27th, the wind piped up to a gale from the S.W., and it rained in torrents for twelve consecutive hours. This unlucky day cost me two medals. I

was away from home for a few days, so poor Whiskers had no assistance whatever in sheltering and feeding the young and, as was only to be expected, they succumbed.

Fourth nest. I felt quite sure from what I had seen of the perseverance of the Whiskers family that they would have another try, so I drafted back two of the three I had recently removed. Not having any idea as to which were males and which females I selected the other large bird and one small one. By the 10th August the Bulbuls were incubating another clutch of three eggs, which hatched on the 19th; but a day of continuous rain on the 20th was too much for the young birds.

Fifth nest. These untoward events seemed to indicate that the young required warmth and some shelter from the rain, so I fixed up a basket-nest and a rain screen, the advantages of which the Bulbuls were not slow to recognise, for they soon had two more young in hand, and these, when I left home on the 22nd Sept., were growing apace. I returned on the 5th October, and was told there had been an epidemic of some sort amongst the fruit-eating birds, and that all the Bulbuls except one were dead. I was, therefore, not a little astonished to discover two lively little Bulbuls sitting side by side in the middle of a clump of privet. Although they were tiny little things they had well developed crests, white cheeks, and, in fact, resembled the adults in every respect, except that the under tail-coverts were paler and the necklace only faintly indicated. By the 18th Oct. the necklace was quite distinct. On the 10th Nov. I caught up the young Bulbuls and brought them into the house, and I then noted that, whereas in the adults the four outer rectrices on each side are tipped with white, in the young only the outer rectrix was so marked. I was glad to find a good home for the youngsters and their sole surviving parent with one of our members. It is interesting to note that the surviving parent was the second largest bird, and therefore, if it was a female, as one would infer from its size, the other large bird, which incubated the third clutch of eggs and took sole charge of the young, must have been a male. However, as I said before, I am not at all sure what the sexes of any of the four Bulbuls really were.

When I look back upon the many vicissitudes which these

young Bulbuls underwent, the terrible weather of last September and October, the gales of wind, the long cold nights, and the many days when I saw them huddled together in a soaking downpour of rain, when I reflect that they were reared by a single parent, and that that parent only escaped death from contagious disease by a fluke, I can only repeat the remark of the Duke of Wellington anent a certain great and historic battle—"it was a deuced close run thing."

NOTES FROM NORTH-WEST AFRICA.

By T. H. NEWMAN, F.Z.S., M.B.O.U.

I think we all like to read about wild birds, and in fact it seems to me almost the duty of anyone who keeps birds, to try and find out what has been written about their natural habits, what sort of country they inhabit, what is the lowest temperature they are subjected to, and so forth. I am sure many of our members must from time to time come across interesting birds during their travels, but a glance down the "Contents" columns of the volumes of our Magazine, does not show that many have given us their experiences; this must, therefore, be my excuse for jotting down these few notes about the birds I met with during a recent five weeks' tour to Tunis and through Algeria, although they only deal with the commonest species.

As I did not decide to go until it was nearly time for starting, I had not much opportunity beforehand to read up about what sort of birds I was likely to come across. Many very interesting papers dealing with the ornithology of this region appeared in the earliest volumes of *The Ibis*, and latterly Mr. Whitaker has contributed a series of articles which have culminated in his two beautiful volumes on "The Birds of Tunisia." I was greatly indebted to this work when compiling these notes, and have generally followed the nomenclature there used; as unfortunately I found these books too heavy to take with me, my *modus operandi* was to tick off all the species, as far as possible, mentioned by Mr. Whitaker, in Mr. Dresser's "Manual of Palearctic Birds." I also made a list of the species of especial interest; in this way, when a bird was clearly seen, it was nearly always

possible at least to determine the family to which it belonged, and a glance down the species marked in the Manual generally resulted in the exact identification. I cannot imagine anyone failing to be greatly edified by a visit to this part of the world, which presents so many varied objects of interest; but no one who does not care for the feathered inhabitants of a country can realise what a vastly added delight there is in coming across birds which are either quite unknown or rare with us, and of observing them under conditions very different from those at home.

Our party was a small one, consisting only of three others besides myself, which often gave me opportunities for looking out for birds which I should not have had had we been a larger number.

We started on 12th of November last. On the way down to Dover I noticed a few Lapwings (*Vanellus vanellus*) and Black-headed Gulls (*Larus ridibundus*) in the fields. We had a good crossing to Calais, though it was rather cold and inclined to rain; a flock of Gulls followed the boat, among which were recognised one Lesser Black-backed (*L. fuscus*) and a few Black-headed; there were some also which looked like Common Gulls (*L. canus*). As we neared Calais, four Gannets (*Sula bassana*) were seen; some were flying just over the surface of the water, while others were at a considerable height. Gulls also became more numerous, again apparently mostly Common, though there seemed to be some young Herring-Gulls (*Larus argentatus*) among them.

The 13th was spent in Paris; we were quite glad to leave it behind in the evening after a damp and very muddy day.

We reached Marseilles early next morning in brilliant sunshine. After lunch I took the opportunity to visit the Zoo; it is small, though prettily laid out in the upper part of the City, behind the Palais de Longecamp; beautiful trees and shrubs forming by no means the least attractive feature. It is under the same management as the Jardin d'Acclimatation at Paris, and serves as a resting-place for animals destined either for Paris or for exportation. There were not very many birds; the first to be seen were two Flamingoes (*Phænicopterus roseus*) in a sort of grotto; some Canada Geese were in a pond with a fine

waterfall at the back. Under the arches of a viaduct which runs across the gardens, were a fine pair of Condors and some very perfect Bearded and Griffon Vultures. In another part of the gardens were four Ostriches, one being a cock, a couple of Rheas, and two young Emus. A range of aviaries contained a few of the commoner species of Pheasants and some common Peafowls, some being white; a quantity of domestic Pigeons and Poultry are also kept; among the latter were several cocks of the curious naked-necked variety. In another row of small aviaries were a nice Hobby (*Falco subbuteo*) and some Kestrels (*Tinnunculus tinnunculus*), apparently newly arrived, as they were very wild and kept flying against the bars and uttering screams; there were also some Barn and Eagle Owls. Some Magpies shared one compartment with a Jackdaw, said to have been obtained in France, which showed very pale grey, almost white on the sides of the neck. Two Macaws, together with some of the commoner Cockatoos, a Lesser Vasa Parrot, also a Blue-fronted Amazon, were on perches hung under some trees; elsewhere I came across a Crowned Crane (*Bolearica pavonina*), a couple of Wood-Ibises (probably African) a Great White Egret and some Purple Gallinules. In a grassy enclosure were some Gulls of several species, some fine White Storks, a female Australian Sheld-duck, an Egyptian Goose, a pair of Black Swans, and what I took to be a Shag; it had a distinct crest at the back of its head, which I should hardly have expected at this date. Yet another range of four or five enclosures contained a number of Barbary Doves, a Common Turtle-dove and a hybrid Turtle \times Barbary; a quantity of Java Sparrows, some Weavers, and a few other small birds occupied another of the compartments. I noticed an Emerald-spotted Dove—or had it purple spots?—a number of Barred Doves, and, most interesting of all, a Dove which I believe to have been an Aldabran Turtle-dove (*Turtur aldabranus*) from its resemblance to the Madagascar Turtle (*T. picturatus*)—(see *Avic. Mag.*, Vol. VI., N.S., p. 79)—being of the same purple vinous tint as that species, but having the head also of this colour instead of grey, it seemed also a little smaller; it was very like the plate in P.Z.S. 1871. A Half-collared Turtle-dove was bullying it. The most noteworthy Mammal seemed to be a white

Hind, probably a Red Deer; she had I believe pink eyes, there was a curious brown patch on one flank, and a yellowish tinge surrounded the tail. Later in the afternoon we visited the rocky islet of the Chateau d'If. I saw some Gulls flying near the island but did not identify the species.

On the 15th, we embarked at midday for Tunis; a large flock of Yellow-legged Herring-Gulls (*Larus cachinnans*), mostly adult birds—but some young ones in the mottled grey plumage doubtless belonged to the same species—also a few Black-headed Gulls, followed us. I watched them from the stern of the boat for some time; the Yellow-legged form of Herring-Gull differs also from our bird by having a darker grey mantle: the bright yellow bills and feet of the adult birds were very conspicuous. Six or seven continued to follow until darkness came on.

Owing to the rough and wet weather I did not come on deck until late next morning, which was a matter for regret, as earlier in the day we had passed along near the Western coast of Sardinia, and as this is one of the chief breeding places of the rare and beautiful Audouin's Gull (*L. audouini*) it was here if anywhere that I had hoped to see it; but, although I kept a good look out for a pale grey Gull with a coral-red bill with a black band, I never saw one. About a dozen Yellow-legged Herring Gulls were in sight: they kept close behind the ship. During the early part of the afternoon the African coast was sighted; a long line of irregular hills ending in the low promontory of Cape Carthage, which we rounded soon after dark, and steamed slowly along the canal through the El-Bahira Lake, getting some pretty effects in the water from the reflected lights which dotted the whole shore on our right, while a crescent moon, partly hid by clouds, hung low down just ahead, above which Venus blazed brightly. We landed at Tunis just before eight o'clock.

It can be imagined with what eagerness next morning, almost before it was light, I seated myself by the window and looked out to see what birds were stirring. A few nondescript fowls were visible in a neighbouring yard, flocks of domestic pigeons were also seen circling round; presently a large Gull appeared, which was later on followed by a whole flock flying high overhead. Some Sparrows were observed perching on some

telegraph wires; when one flew nearer it seemed to have a chestnut-coloured crown, so I took it to be a Spanish Sparrow (*Passer hispaniolensis*), as I knew Mr. Whitaker had stated that this was the common Sparrow of Tunisia. Here I will pause to make a few remarks about the Sparrows I met with; they were certainly the most generally distributed birds I saw, being met with everywhere; numerically I must have seen more Sparrows, with the possible exception of Crested Larks, than any other birds. I devoted a considerable time to watching them, and confess myself much puzzled; they were as a rule not nearly so tame as ours at home, and objected to being watched. Certainly at least two types of Sparrows were common; there were those with distinct chestnut crowns, which were always seen in or near towns, and which, knowing Mr. Whitaker's opinion, and that most surely he should know, I always gaily put down as Spanish Sparrows; but on looking up figures of the Italian and Spanish Sparrows in Dresser's "Birds of Europe," I find that while many of the birds I saw very closely resembled the former, I certainly never noticed a bird with so much black on the breast and flanks as depicted for the latter. When Canon Tristram wrote in *The Ibis* for 1859 "On the Ornithology of Northern Africa," he was of opinion that the form which was found in the towns, with habits resembling our own bird, was the Italian Sparrow (*P. italiæ*), while the Spanish Sparrow, though very abundant, especially in the salt marshes, and always breeding near water, avoided in Africa, as a rule, the habitations of men, and in habits differed greatly from the House Sparrow (*P. domesticus*). On the other hand, Mr. Whitaker has no hesitation in saying that the Spanish Sparrow is the common species both in towns and in the open country, and is doubtful if the Italian species occurs in Tunis, in which supposition he is doubtless correct. It seems that both these chestnut-crowned forms vary considerably in different localities, and that the Italian form sometimes approaches the House Sparrow in all but the colour of the crown; all these forms appear to breed together indiscriminately wherever they happen to meet. Then there was a Sparrow which I often saw away from the towns, generally when there were only a few buildings near; it was a neat, greyer looking-bird, with no chestnut on the

crown and only a small black patch on the throat ; I used to put these down as Tree Sparrows (*P. montanus*), but Mr. Whitaker says this species is not common in Tunisia, and that it is rather rare in Algeria.

The morning was spent exploring the higher part of the town. Tunis is too well known, neither is this the place, for a description ; it is sufficient to say that the modern French town extends from the harbour along the shores of the lagoon of El-Bahira, the so-called Lake of Tunis, occupying the flat neighbouring land, behind which is situated the ancient native quarter on somewhat higher ground. I saw two bird-shops, which, however, had nothing of more interest to show than a few Canaries and a very tame Blue-fronted Amazon Parrot. The streets are very narrow, mostly paved with rough stones ; many were covered over with arched roofs like arcades ; the native Bazaars or Souks are even more Oriental and picturesque than those of Cairo or Constantinople. The shops are small square places open in front ; the proprietor squats on one side surrounded by his goods.

In the afternoon we visited the Palace known as the Bardo, which is about two miles outside the town ; it is surrounded by gardens containing many beautiful flowering shrubs and trees, among which a large flock of Sparrows were making a great noise like their relatives at home before going to roost ; they were rather shy and so hidden among the leaves that I could not get a good view of them, but two I saw on the building seemed to have chestnut-coloured crowns, so very likely they were all Spanish Sparrows.

The 18th was a bright morning after heavy rain, which made the streets very muddy. In the morning I came across another bird-shop with a quantity of Canaries ; one cage contained several Serin Finches (*Serinus serinus*) and a hen North African Greenfinch (*Ligurinus chloris aurantiiventris*) which I was very pleased to see, as it was one of the birds I was anxious to meet with ; I shall have something more to say of these birds later on, as I afterwards came across both species at large. A Goldfinch (*Carduelis carduelis*) occupied another cage. There was also a Blackbird : I was not able to notice any difference in

the Blackbirds I saw from those with us, but the resident form has a larger and stouter bill, and the hens are greyer than our bird. I heard Blackbirds several times, but they were always very wild, and I was never able to get more than a glance at the birds as they dived into cover; the North African form is known as the Moorish Blackbird (*Turdus merula mauritanica*). Later on I saw another Goldfinch, this time a young bird, in a small cage hanging outside a shop. In the afternoon we took the Galetto motor train for Carthage; the line runs along a raised embankment right across the El-Bahira Lagoon, alongside of which the canal has been constructed which now joins Tunis to Galetto, and so connects it with the open sea. Small birds were fairly numerous along the line, and I also saw a small flock of Waders, which flew alongside the train over the water; they were probably Dunlins (*Tringa alpina*), or Knots (*T. canutus*), but from the motion of the train it was impossible to identify them for certain. A row of posts projected out of the water at intervals near the line on the left side of the train, almost every one of which served as a perch for a Cormorant (*Phalacrocorax carbo*); one had its wings extended in the usual attitude assumed by this bird when drying itself in the sun. This habit of perching on posts here seems to have been indulged in from time immemorial, as Salvin saw them sharing the posts with the Ospreys in 1857, and Mr. Whitaker says that they may often be seen in winter at El-Bahira perching on the posts in the shallower parts. Just before we left the vicinity of the Lake we were fortunate enough to see a beautiful flock of some seventy to a hundred Flamingoes standing in the shallow water in a long irregular line, their beautiful pink plumage making a lovely contrast against the blue water. Flamingoes, though not so common as formerly, still frequent both this Lagoon and the smaller one of Sebka es-Sedjoumi to the south-west of the town in considerable numbers during the winter months; they do not, however, remain to breed here.

On arriving at Carthage we began to inspect the ruins; this was a most glorious day, it was quite hot, in fact this was the only really warm day we had during the whole five weeks. We first went into the well-preserved amphitheatre where S. S.

Perpetua and Felicitas and their companions were martyred in the year 203 in the persecution under the Emperor Severus; here I saw a large green Lizard, over a foot long, run under some stones; large Grasshoppers with red or green wings, Dragonflies and other insects were very numerous. We then saw the Theatre, in which a number of Wagtails, apparently *Motacilla flava*, were disporting themselves; I also noticed a small flock of Pipits, which, from their well-spotted breasts, I take to have been *Anthus pratensis*, as the Meadow Pipit is a common winter migrant to North Africa. The remainder of the time was spent viewing some of the other ruins, which are numerous and extensive. A beautiful garden surrounds the chapel of S. Louis; a fine blue *Convolvulus* was a conspicuous feature, growing over many of the houses and covering fences. Just before sunset we drove to the charmingly-situated Arab village of Sidi-bou-Said, and ascended the lighthouse on Cape Carthage, from which a most exquisite view of the entire Gulf of Tunis was obtained, with a glorious sunset behind Tunis; as the Bats were already on the wing, we hurried back to the carriage and drove in the dusk to Carthage Station. As we passed through a grove of Olive trees a flock of birds, about the size of Pigeons, flew by, but it was too dark to see what they were; and directly afterwards a large light-looking bird, probably an Owl, was caught sight of. At Cape Carthage I saw a few bright-coloured Sparrows, but, on the whole, birds seemed wonderfully scarce.

Next morning we visited the Belvedere Gardens, which are situated on the steep slopes of a hill, from the top of which fine views of the Gulf, with Carthage in the distance, can be obtained; the gardens are extensive and contain many fine trees, Palms, and flowering shrubs: Oleander and Plumbago being in bloom everywhere. I watched some Sparrows, which did not seem so chestnut on the head as those in the town; there were many birds among the trees, but they were difficult to see. I did, however, get a glimpse of a grey-looking bird, which kept uttering a loud note; I am nearly sure it must have been a Blackcap (*Sylvia atricapilla*); the Blackcap can be found here during the entire year. I afterwards walked up to the Bab Sidi Abdullah, an old gate-way situated in the higher part of the

town; through the double arches again charming views across the Bay were seen. In cages just beside the gate were two small rather brightly-coloured Goldfinches and a very fine North-African Greenfinch cock, of a beautiful yellowish-green colour. While I was here two Swallow-birds flashed by without giving me time to identify them.

In the afternoon I strolled down in the direction of the harbour, passing flocks of Sparrows, which were rather wild; the cocks had not much chestnut on the head; they may have been ordinary House Sparrows, but seemed neater than our birds. A number of Gulls were seen in the distance flying over the water. I skirted the shore of the Lagoon, and watched some Waders feeding on a broad mud-flat; I think they must have been Dunlins; among them were two very small Gulls, one being immature, with a blackish band on the end of the tail; they were evidently Little Gulls (*Larus minutus*). They did not seem to be feeding; one hardly moved at all during the whole time I was watching; it just stood in the shallow water, the other flew about a little. A few Yellow-legged Herring-Gulls were also flying about. I then mounted a steep stony green hill; small birds were numerous but very wild, I saw one flock in the distance, which must have contained some hundreds of individuals. Everywhere I went the birds seemed wilder than with us, no doubt because so many are shot for eating; it made it very difficult to make out the species, especially as I am not much used to identifying wild birds. There was a tremendous wind blowing on the top of the hill, which made me not inclined to linger there; on the very top I saw a large Locust. As I was descending the other side a small dark-grey-looking Hawk dashed round a corner; I expect it was a Merlin (*Falco æsalon*), but it might have been a Hobby; this was the first Bird of Prey I had seen.

The 20th was spent in the train; as we had some eleven hours of travelling to get through, an early start was made and Tunis was left behind at 7.16. At first the country was flat with hills in the distance; soon it became more undulating, with numerous rough bushes, some of which were covered with pink or mauve blossoms; a beautiful low-growing bright blue Iris was

common, as well as other flowers. Presently we came to the Medjerdah River and kept by it for a considerable distance, it first flowed through muddy looking banks, but as we got higher the country became more wild, the river banks higher and more stony; then we passed through extensive cork forests which cover many acres, and later on the forests which are said to be the last home of the Algerian Red Deer, for by this time we had passed out of Tunisia into Algeria. About here the line makes some remarkable bends, so that the same view may often be seen first from one side of the train and then the other. A very brilliant sunset was remarkably fine seen over the mountains with masses of dark purplish chocolate clouds; we reached Hammam Meskoutine, our destination, about 6 o'clock.

During the day I noticed the following birds: just after leaving Tunis we passed close to the inner lake of Sebka es-Sedjoumi, where Waders were flying over the mud flats and several flocks of Flamingoes could be seen scattered over more distant parts of the lagoon. A few small birds, generally in flocks, were noticed from time to time flying over the low scrub; I saw one medium-sized and four small Hawks; a bird which looked like a Buzzard flew past while we were having lunch, and just after we had changed trains at Duvivier, when it was beginning to get dusk, a large bird, probably an Eagle, flapped past the station, but on the whole very few birds were seen all day.

The 21st was spent at Hammam Meskoutine; this remarkable place deserves a brief description. It is situated on the line between Bona and Duvivier; there is simply an hotel there in connection with the baths, the place getting its notoriety from the wonderful boiling springs of sulphur and iron water, which deposit most curious limery cones wherever they have bubbled up out of the ground; some of these cones must be thirty feet high, and resemble small extinct volcanoes as they have a hollow sort of crater running down their centres. There are more than one hundred scattered about. At present the hot water, after flowing over some beautiful terraced formation like white marble, pours down in streams over a great mass of lime-stone and forms the Grand Cascade. Where the water is flowing the rock is of the purest white, but it is stained a rusty red in other places from

the iron in the water; dense clouds of steam rise above, and when seen in bright moon-light, as I first saw it, the whole effect is most weird and peculiar. The hot water flows away forming a pebbly stream at the bottom of a beautiful sheltered valley, the steep sides of which are covered with a luxuriant growth of almost tropical vegetation; in the steamy atmosphere great Palms flourish, tangled thickets of low growing shrubs, mostly thorny, clothe the slopes, clumps of small Bamboos form thickets, Oleander and Tamarisk bushes grow close to the water, and Cyclamens were in full bloom among the rocks. I spent the morning watching the birds; the valley seems to be a perfect paradise for them, the bushes being full of birds. Many Warblers were wintering here; I think I heard the Chiff-chaff and Grasshopper Warbler, and thought I saw a Wren slip out of a bush. I seated myself on a rock where I was partly hidden, but could get a good view of a large part of the valley; the stream flowed beneath me, while growing on the opposite slope was a tree with many horizontal branches almost bare of leaves, which appeared to be a favourite resting-place for many different species, and I soon began to make the acquaintance of several that I had not seen before. The first bird to show itself was a Goldfinch with a drooping wing, which hopped about for some time among the boulders close to the water; then I saw a Sparrow, and a couple of Tits flew into the tree opposite. At the time I could not quite make them out, but I now believe them to have been the Ultramarine Titmouse (*Parus ultramarinus*) a species which I often saw afterwards, it is the North-West African representative of our Blue Titmouse, from which it differs by having the upper parts slaty blue and all the blue portions of the plumage much darker. Then a fine cock Algerian Chaffinch (*Fringilla spodiogenys*) took up his station on a branch; it differs from our bird by having the head more slate blue, there is also more of this colour in other parts of the plumage and more green on the back. Then my attention was attracted by a rather loud note and a couple of birds settled on the outer twigs of a bush growing at the top of the slope opposite to me; I saw they were something I was quite unacquainted with, for though they were soberly attired yet there was something about them which seemed attractive; in size they seemed

almost as large as a Starling but with longer tails, in colour they were only dull brown with darker, almost black-looking heads, while the pale brown breast faded into white towards the tail. This was one of the birds I had been hoping to meet with, as they were Dusky Bulbuls (*Pycnonotus barbatus*), a species which is confined to this region and which has no European representative; for some time they sat in full view, thus giving me time to have a good look at them. This species inhabits wooded and bush-covered localities. Next to arrive was a Redstart-looking bird, which sat on the end of a branch for some little time; I am not quite sure of this bird, but think it must have been a Moussier's Redstart (*Diplootocus moussieri*), a most attractive little bird which I frequently saw for certain later on. Then a beautiful cock North-African Greenfinch settled in the tree opposite; the male of this form is much brighter-coloured than ours, and this one looked almost as yellow as a Canary as it sat in the sun. The hen, on the other hand, is greyer and duller than the English bird. Very likely this species, or at least the cocks, would be acceptable over here as exhibition birds. Lastly a couple of greyish-looking Sparrows with chestnut-coloured crowns came to the tree, and I also saw another of the Redstarts. Blackbirds were numerous and often heard, but were so wild that I could only catch just a glimpse of one now and then.

(To be continued.)

CORRESPONDENCE, NOTES, ETC.

THE BLACK-HOODED PARRAKEET.

SIR,—In my note on this species in the last number of the *Avicultural Magazine*, I stated that I had not detected any difference in the plumage of the females of *Psephotus cucullatus* and *P. chrysopterygius*. I now hasten to correct this statement, for I find there is a distinct difference. In the female of *P. chrysopterygius* there is a distinct, though faint, yellowish frontal band, whereas there is none in *P. cucullatus*, so far as I can judge from the material at my command. Moreover the crown of the head in *P. chrysopterygius* appears to be somewhat darker in colour than in the allied species, which has a greenish tinge over the otherwise greyish crown.

I was at first led to think there was no difference in the females of the two species by comparing a specimen in my collection, imported in 1902.

or 1903, which I took to be a typical example of *P. chrysopterygius*, with the female of *P. cucullatus* in the Zoological Gardens; and I found them to be identical.

This bird was one of a pair received alive by Mrs. Johnstone. The male went to Mr. Fasey, who now has it stuffed; the skin of the female was kindly given to me by Mrs. Johnstone.

I have now ascertained the very interesting fact that this pair of birds are typical examples of *Psephotus cucullatus*, a species only described last year, although Mrs. Johnstone's birds were imported seven or eight years ago.

Hence the bird I compared with the living examples of what I believed to be a species new to aviculture, was in fact one of the very same species. In comparing the female of the true *P. chrysopterygius* with *P. cucullatus* the difference is at once obvious.

By the way, the *true* Golden-shouldered Parrakeet appears to have been extremely rarely imported, in fact I am inclined to think that the eight examples received in London in 1897 are the only living specimens of *Psephotus chrysopterygius* which have ever reached this country.

D. SETH-SMITH.

WILD HABITS OF THE GIANT WHYDAH.

SIR,—I was much interested by the article by Mr. W. E. Teschemaker on the breeding of the Giant Whydah which appeared in the January number.

I have now been about seventeen years in East Griqualand, and the Giant Whydah is a common bird in most of the parts I have been stationed in, and I am very familiar with its habits.

Now the point that particularly struck me in the above article, is that Mr. Teschemaker expressed doubt as to the polygamous habits of this species; the same thing has often struck me, but I have never been able to prove it. It is usual to read in the text-books that the black males are accompanied by ten or twelve brown females. Now in the spring, when the adult males have already acquired their black plumage, but before they have separated for breeding, these birds are often found in large flocks, which *appear* to be composed of perhaps two or three males and perhaps twenty or thirty females, but if anyone were to fire into the "brown" of one of these flocks he would probably find that out of the *brown* birds killed a good half were not females as is usually supposed, but young *males* of the previous year which had not yet acquired the black plumage, and I think the idea of this species being highly polygamous has probably sprung from the belief that *all* the brown birds were females.

Another point I should like to mention is that, according to my experience, the young males do not attain the full plumage until the second year; but this is a point for aviculturists to decide. I have often seen young males, still in the brown plumage but much larger than females, and

with often fairly long (compared with females) *brown* tails, paying vigorous court to the females, and going through the different forms of display, but looking quite ridiculous as they have no beautiful plumage to show off.

Another reason for ascribing polygamious habits to this species may be that the males are very ardent and will chase or display before any female that comes along; but this habit is not confined to this species, but is common to the whole family, and also to the genus *Pyromelana* (Bishop birds) which are not accused of polygamy.

Mr. Teschemaker mentions that he does not know the meaning of the Kaffir name for this "I Sakabula;" it is very appropriate, but is rather hard to translate, as it is a compound of the two verbs "saka saka," which literally means to wave about, like the waving of tall grass, and "bula" which means to shake, like the shaking of a mat; both refer to the display of the bird and the long waving tail. European names are "Kaffir fink" and "Kaffir chief." I quite agree with Mr. Teschemaker that the idea that the males cannot fly in wind and rain is quite a mistake, as I have often seen them flying about quite happily in sheets of rain, and their breeding season is at the rainiest time of the year; but like most birds with heavy loose tails, they do not like turning their backs to the wind, as they cannot control themselves properly.

C. J. DAVIES.

BREEDING OF THREE-COLOURED PARROT-FINCHES.

SIR.—It may interest you to know that I have *six* young Three-coloured Parrot-finches (*Erythrura trichroa*) flying about one of my aviaries.

The *last* one left the nest *April 6th*. They are all same size as their parents.

W. R. TEMPLE.

THE CRY OF THE SATYRA TRAGOPAN.

SIR,—I should be glad to hear from some of your readers who are acquainted with Tragopans, either in their native haunts or in captivity, as to their experience of the various cries of Tragopans and the meaning of each. I see in the volume of "Game Birds," in "Lloyd's Natural History," nothing is said as to the various calls of *satyra*, but Mr. Young is quoted as saying that *melanocephalus*, when alarmed, utters a series of wailing cries, not unlike those of a young lamb or kid, like the syllables "waa, waa, waa," and that this is louder in the breeding season when it can be heard upwards of a mile, and that it is probably to invite females to the spot.

The Abbé David is quoted as stating that *temmincki* gives a very loud cry most nearly imitated by the syllable "oua" two or three times repeated.

I have never kept either of the above varieties of Tragopans, but my experience of *Satyra* Tragopans is: (1) The hen will, when alarmed, at all seasons utter a cry of "quar, quar, quar," something like a duck. (2) The cock is almost invariably silent except in the breeding season. (3) In the

breeding season he at intervals gives utterance to a plaintive high pitched note "bay, bay, bay," like a very young lamb. This is, I think, a call to the hen and is only used on days when he is displaying. (4) In the breeding season the cock also gives utterance occasionally to a very loud, booming, most weird, unearthly cry "oo-ah, oo-ah, oo-ah," which I take to be a challenge of defiance to the neighbourhood. It is not, I think, to call the hen, as I have seen the birds together when the cock has given this cry, which causes him considerable effort to make. He is then taking no apparent notice of the hen. Nothing could be less like his cry when calling the hen than this moaning cry and it is (in the case of my birds) uttered only two or three days each season. When heard for the first time it is very startling and not easily to be forgotten. I was incredulous at first that it could be the same bird that uttered the plaintive lamb-like cry. (5) The cries of the cock are only uttered by adult birds which have assumed full breeding plumage.

C. BARNBY SMITH.

THE SOCIETY'S MEDAL.

I must apologise for omitting from the list of members who appear to be entitled to the medal, published last month, the names of Mr. E. J. Brook, who has bred the BLACK LORY (*Chalcopittacus ater*), and of Mr. W. E. Teschemaker, who has bred PELZELN'S SAFFRON-FINCH (*Sycalis elzelni*); the latter gentleman also now has a claim for the RED-WHISKERED BULBUL (*Otocompsa jocosa*).

[ED.]

CORRECTION.

On page 194, last line but one, in Mr. T. H. Newman's article on the Nesting of the White-throated Pigeon, "food" should read "fact."

POST MORTEM EXAMINATIONS.

RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr ARTHUR GILL, Lanherne, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case, *and a fee of 1/- for each bird*. If a reply by post is required a fee of 2/6 must be enclosed. Domestic poultry, pigeons and Canaries can only be reported on by post.

GREEN CARDINAL. (Mr. Moerschell). Bird died of concussion of the brain.

LOVEBIRD. (Mr. R. N. Wright). The bird had an injury to the skull, and I think it was caused in all probability by one of the other birds.

PARROT FINCH. (Mrs. Howard Williams). The bird died of apoplexy.

TWO GOULDIAN FINCHES. (Capt. G. Rice). Both birds died of pneumonia.

NEW MEMBER.

Mr. L. G. PIKE; King's Barrow, Wareham, Dorset.

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# AVICULTURAL MAGAZINE.

Edited by FRANK FINN.



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MURGHAB PHEASANT. (*Phasianus principalis*).



# Avicultural Magazine,

BEING THE JOURNAL OF THE  
AVICULTURAL SOCIETY.

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JUNE, 1910.

## THE ROYAL PHEASANT; A MEMORY OF THE LATE KING.

*Phasianus principalis.*

By FRANK FINN, B.A., F.Z.S.

Members will, I know, be in accordance with me in wishing to show all possible respect to the memory of so good a ruler as our late king, and thus I am sure the illustration which forms our frontispiece this month will be appreciated, representing as it does a bird which was named after him when he was Prince of Wales, and has since been imported here and bred to some extent in this country, winning golden opinions wherever it has been kept. It is worth mentioning that his late Majesty on first hearing of it, asked if it could be got alive.

The Prince of Wales's, or, as I should propose to call it now, the Royal Pheasant, is, as the illustration well shows, one of the species or races of which the well-known Colchian or Common Pheasant is the type. It differs from that bird in the much lighter tone of the plumage, which is of a bright chestnut rather than a deep bay, and most conspicuously in its white wing-coverts. In the latter point it agrees with the Mongolian (*P. mongolicus*), but that bird is widely different otherwise, especially in having a wide white collar and being particularly dark in colour. The hen *principalis* differs from the Common Pheasant hen in being lighter.

This Pheasant was discovered by the Afghan Delimitation Commission of 1884, inhabiting grass and tamarisk-jungles in the

Bala-Murghab river ; and, what is particularly curious, leading a semi-aquatic life, for it was observed to be quite at home in thickets growing in two or three feet of water, and to swim as well as wade in getting from one place to another.

Zarudny also states that it always keeps near water when crowing in the pairing season, for "it drinks and bathes even during the interval of its crow or song." In bathing at all it would appear to be unique among birds of this family.

Its great abundance in the swampy reed-covert, where it has been described as rising in places in far greater numbers than at any battue in England, points it out as a singularly suitable species for our damp climate and often soppy soil ; and if the breed spreads it may yet become our dominant type, and a fit memorial of the late King.

And àpropos of this, just as I am going to press our member Mr. E.W. Harper sends me the following obituary verses of his own on his late Majesty ; they will, I am sure, meet with the sympathetic approval of all of us.

\* \* \* \*

## The Peacemaker.



The labourer's task is done ; he sleeps !  
 Britannia, bent with sorrow, weeps  
 For her dead King, who ever strove  
 To bind mankind with cords of love.  
 "Goodwill and peace on earth," he sang ;  
 And round the world the echo rang !  
 A slave of duty—he is still  
 At work, when at his window-sill  
 The scythèd messenger appears,  
 And bids him mount to higher spheres.

## MY HOOPOE.

By Miss E. F. CHAWNER.

I feel some diffidence in sending these notes for publication, as I am well aware that to generalise on the species when one has only one individual under observation is rash in the extreme. Therefore, my remark may only be considered to apply to my own bird, and not in any way as laying down the law.

My Hoopoe has been eleven months in my possession, passed the winter in a partly closed-in but unheated garden aviary, is now robust and in very decent plumage. He was only a few months old when I bought him, and I was told that he was doing well on an "insectivorous" mixture (some of which was sent with him) and would require no other food. This I soon found to be far too roseate a view of the case; the bird was evidently not sufficiently nourished, and I saw that he got very little of the food down his throat, and that it was a difficult matter for him to scoop it up. I am a firm believer in the merits of bread-and-milk, so I tried mixing some with the food. The bird ate it voraciously, but it was not a success. He remained thin, took to moping, and neglected himself till he became so dirty that I was forced to wash him. I gave him all the insects, especially grasshoppers, that I could catch, and I believe these kept him alive. Of course, the miserably wet summer and autumn were sadly against him, and every morning I fully expected to find a corpse when I came out.

One of our members kindly advised me to try scraped meat and ants' eggs, in addition to all the living insects I could obtain; he added that he feared it was a case of consumption, and urged the need of warmth. This was very difficult, for when put in a cage the bird wore himself out in his endeavours to get out, (I have no indoor bird-room) and his dirtiness made him very objectionable in the house. He would not even try the meat and ants' eggs; so, at last, I gave him a daily feed of mealworms, as other insects were scarce and hard to find. I changed the insectivorous mixture for another containing more egg-flake and dried insects, and found a slight improvement in the bird's condition. I also used to prowl about grassy hedges and banks



with a lantern, whenever the nights were mild, and in this way obtained a number of various larvæ for him.

Then I read a letter in the Magazine singing the praises of *curd*. I tried it the next day on my bird and had the satisfaction of seeing him eat it greedily. From that moment he began to pick up and I had no more trouble with him. He grew lively and well-covered, dusted and preened his feathers, grew fresh ones where needed, and thrived apace. In short, from a pitiable object he became a healthy bird. Curd alone, however, does not suit, and I find the ideal to consist of a mixture of half curd and half "food" and a few pieces of scalded bread, all mixed together with hot milk. Mealworms have diminished to six per diem, and generally some of those find their way into other beaks than his.

Once he was properly fed cold did not seem to affect him unless, as once or twice happened, his food was frozen. I shut him into the inner compartment at night and let him please himself about coming out by day into a roofed lean-to. Now he spends most of his time in the open flight, probing every inch of soil. He loves smooth caterpillars and grubs of all kinds, also cockroaches, and eats worms occasionally, but not in any quantity.

I am wondering when he will begin to call; so far, except for a single harsh jarring note when he is frightened or excited, he is absolutely silent. Possibly 'he' is really 'she,'—I cannot be positive which.

---

## NOTES FROM NORTH-WEST AFRICA.

By T. H. NEWMAN, F.Z.S., M.B.O.U.

(Continued from page 223.)

In the afternoon a small Arab boy guided us up a steep rocky path for about two miles to see a curious underground lake, which became exposed some twenty years ago after a landslide. On the way back, when exploring some rough rocky ground among Olive trees, I flushed a covey of Barbary Partridges (*Caccabis petrosa*) which, after getting up with a clatter, sailed across the valley and were soon lost to sight; I will describe this bird when we get to Algiers, as I brought a pair

back with me from that place. We passed some more hot springs, with the remains of Roman baths near, and followed a warm stream back towards the Hotel, on the banks of which Palms and Oleanders flourished. At night, I think I heard Owls, which sounded like the distant barking of dogs; there was a particularly noisy kind of frog in a warm pond close by. The country round is wild and rocky and affords good sport with Wild Boar and Porcupine; I had some quills of the latter given to me, they can often be picked up among the rocks.

I was down in the valley again by six next morning, almost before it was light; though many birds were about I saw nothing fresh, I heard, however, a Robin-like twitter in some Olive-trees, but could not see what it was. We left Hammam Meskoutine soon after eight, and arrived at Constantine at mid-day. I only saw a few small birds *en route*, and a Kestrel poised in the air just before we reached the town. Constantine is famous, of course, from its impregnable position, being perched on the extreme edge of the precipitous cliffs which form one side of the deep and narrow Gorge of the Rummel, which encircles the town for the greater part of its circumference, the remaining portion being protected by rocky heights. A wonderful footpath, called the Chemin des Touristes, overhanging the River Rummel, has been constructed against the face of the cliff all along the Gorge, from which fine views of the cliffs can be got; they rise steep up from the river-bed to a great height. In the Gorge were numbers of Rock Doves (*Columba livia*), but many tame Pigeons had joined them; I saw a number of chequers, several reds, others with white about them, and one pure white bird. A large colony of Jackdaws (*Corvus monedula*) inhabited some holes high up in the rocks, close to the spot where the old Roman and the modern iron El Kantara bridges span the ravine; Jackdaws are by no means common in Algeria, but this is one of the spots where they are plentiful. Kestrels were very numerous, I had never seen so many together before; they kept flying in and out of crevices in the cliffs and overhead, uttering their shrill cries. A number of Wagtails, probably the White Wagtail (*Motacilla alba*) were running over the stones in the river bed or flitting about the rocks. Storks and Eagles are said to occur here; I

saw an Arab collecting some large flight feathers from near the water's edge, and one or two large birds of prey were seen.

The morning of the 23rd was spent exploring the town; I saw several Goldfinches and one rather miserable-looking Ortolan (*Emberiza hortulana*) in cages. Left Constantine at 1.45 for Batna, which we reached about a couple of hours after dark; it was quite cold here. Batna lies very high, as it is situated right in the Aurès Mountains; there is nothing of interest in the town itself, as it is only a modern French military station, but the marvellous ruins of the Roman towns of Lambessa and Timgad can be visited from here, and that was how we spent the 24th. We started early to drive to Lambessa; it was bitterly cold, though the sun shone at intervals. On the way we passed a few flocks of small birds, and I first saw Irby's Raven (*Corvus corax tingitanus*) which is a small race of the common species, which it represents in North Africa. On arriving at Lambessa, when inside the fine square Roman building known as the Prætorium, a small dark bird flew noiselessly across and popped into a hole between two large stones; I have no doubt this was a Southern Little Owl (*Carine noctua glaux*); this is a very common bird here and may often be seen in the day-time. Among the ruins I first came across Crested Larks; so many forms of these birds occur in this region that I am afraid I cannot attempt either here or elsewhere to define those I saw, but can only call them Crested Larks—these particular ones seemed to belong to a small race. I saw several Black Redstarts (*Ruticilla titys*) flying about and perching on the stones, and I watched a small flock of pretty little sandy-brown coloured birds which were feeding among, or perched upon, some of the blocks of stones from the ruins; they must have been Rock Sparrows (*Petronia petronia*). I afterwards saw a very fine brightly-coloured cock Cirl Bunting (*Emberiza cirlus*) perched on the edge of a twig in an overgrown hedge. The weather was very cold, and as it came on to hail, we were glad to continue our journey to Timgad, which is about 25 miles from Batna; it is rather an uninteresting drive through barren-looking undulating country. Snow was visible on the higher Aurès Mountains; much ploughing was going on, and I saw some Irby's Ravens following the plough as the Rooks do with



us. Just before reaching Timgad I caught sight of the black quills of a large grey bird by a small stream, I expect it was a Heron (*Ardea cinerea*); I also saw several small Hawks. A large flock of Goldfinches were singing in the fruit-trees just outside the ruins; I watched them as they fluttered about while some were feeding on a grassy bank below. A very fine white Wagtail was running about by a little stream near the small Museum, while what looked like some Tree-Sparrows were sitting on the roof of the building. Among the ruins I came across a pair of Black Chats (*Saxicola leucura*); this is a very taking bird, though only attired in smoky black with the tail-coverts and base of the tail white. As they obligingly perched themselves on the top of some blocks of stone I was able to see them plainly; they flew to the ground, then up on to a block again.

During the night there was quite a sharp frost; it was a nice bright morning, fresh but not so cold. I took a walk round the outskirts of the town; Batna is surrounded by a wall for purposes of defence. A number of Goldfinches were singing in the trees just outside the town: I saw several Ultramarine Tits clinging to one corner of the walls and flying about the trees, and presently I encountered two or three brightly-coloured Great Tits, which would be referable to the Mediterranean form (*Parus major excelsus*); they were very tame and hopped about in a hedge only a few feet away from me. On the other side of the town were many Irby's Ravens, some which were perched in some low trees and let me get near enough to have a good look at them; afterwards they flew towards the hills uttering harsh deep croaks and soared up in wide circles. The commonest birds were Sparrows; they seemed to be rather difficult to identify; most were of what I have called the Tree-Sparrow type, the same as those at Timgad. One, however, seemed to have a very chestnut-coloured crown; some that were near the Great Tits were darker brown and looked looser in feather, more like our House-Sparrows.

We left Batna before eleven, at first passing through undulating country with hills near; a road runs parallel with the line for some distance, along which numerous caravans of camels and donkeys were making their way to or from the Desert. I

noticed several small Hawks, many flocks of small birds, mostly Larks, and a few Ravens. We afterwards passed some rugged isabelline coloured country, scarred with dry water-gulleys; here Chats were numerous. Lastly we came to the district where dates begin to be cultivated, past large groves of Palms, and arrived at Biskra about two in the afternoon.

Biskra is situated at the foot of the Aurès Mountains, and is just on the borders of the Desert; it is an oasis which, with others near, forms one of the chief date-growing districts. I took a walk through Old Biskra with its mud-built houses surrounded by beautiful Palms. White Wagtails were very numerous; I heard and saw a Senegal Dove (*Turtur senegalensis*) fly out of a Palm-tree, for here the bird well deserves its name of Palm-dove, being inseparable from that tree, thus differing very widely from the habits of the species in such places as Jerusalem and Cairo, where it has become parasitic on houses and builds in walls and verandahs. The Senegal Dove is very abundant in Southern Tunisia and Algeria. Canon Tristram found it comparatively scarce at Biskra in the fifties, owing to its being much shot at by the French Officers, but Mr. Whitaker has found it most plentiful here recently, some of the Palms being full of them. Though I was often among the Palm groves I only saw very few, and then only single birds.

Next day, the 26th, was a dull cold morning; we drove to the oasis of Sidi Okbar, which is sixteen miles from Biskra, across the flat mud dried-like Desert, with low shrubs growing at intervals out of little heaps like ant hills. I noticed many Larks and Chats; as we drove along a flock of large dark-looking birds, with long legs and necks, were seen flying in the direction of the Mountains. I stopped the carriage and got out in order to get a better look at them, they were a long way off; at the time I took them to be Glossy Ibises (*Plegadis falcinellus*), but it seemed rather a dry district for Ibises, though they may have been making for some distant marsh or stream; still perhaps they were Cranes (*Grus grus*). Sidi Okbar is a very ancient place, and is said to contain the oldest Mosque in Africa; the streets are very narrow, and the sun-dried brick houses so high, that nothing can be seen from them, but when you mount the low

tower-like minaret of the Mosque, a wonderful view is obtained ; in the distance were the Aurès Mountains with Biskra plainly visible nestling at their base, and the level Desert was seen stretching for miles all around with green oases dotted here and there. At our feet, surrounded by a great belt of Date-palms, lay Sidi Okbar, the flat roofs of the houses all being in full view ; dates and couscouss were drying in heaps on many of the roofs. A beautiful cock Blue Rock-Thrush (*Monticola cyaneus*) was just helping himself to a date from one heap, while a party of Sparrows and House Buntings (*Fringillaria saharae*) were busy further off over some couscouss. The House Bunting is a charming foxy-coloured little bird, the cock having a bluish-grey head and neck ; it is most familiar and tame, and is nearly always found near human habitations, being particularly partial to the Arab huts and mosques. It will be remembered that Mr. Meade-Waldo contributed an interesting paper on this bird in the second volume of our Magazine, p. 52. A Senegal Dove was walking about on the roof near the House Buntings, and a Starling (*Sturnus vulgaris*) was perched on a Palm frond. I saw two Turtle-doves (*Turtur turtur*) in a cage, hanging just inside one of the Arab houses, they were not in very good condition, but seemed to be rather small brightly-coloured birds ; this species is abundant as a summer migrant. I took a walk among the Palms, which are very fine here, and saw what I think was a hen Moussier's Redstart. At the edge of the oasis I saw many Crested Larks, which appeared larger and darker-crested than those I had seen before. On the way back to Biskra we passed a large light-grey bird on the ground ; I much regret I did not stop to have a better look at it, as it is possible that it may have been a Demoiselle Crane.

On the following morning I saw several White Wagtails in winter plumage, an Ultramarine Titmouse, and several Irby's Ravens in the stony dry river-bed. A Desert Buzzard (*Buteo desertorum*, or *cirensis* as perhaps it should be called) was flying about loose in one of the houses in the town ; it was very tame, and I used to see it when passing, sitting outside on the window ledge, looking out into the street ; I believe it was quite full-winged. The upper surface of the bird is light rufous brown,



while the head, neck and under surface are creamy-white with sundry dark stripes distributed about the plumage; there seemed something Kite-like about the bird to me. In the afternoon, we went to the hot Sulphur spring, just at the foot of the hills. The spring, which is utilized for baths, is situated in the midst of rough stony ground, with very little vegetation about, though an attempt is made to grow a few Palms. I noticed several White Wagtails and a couple of Starlings, which were rather wild; in contrast to them was a lovely Pallid Shrike (*Lanius elegans*) which was one of the tamest birds I came across; it flew from Palm to Palm, perching on the very tips of the fronds, as though to be admired. The upper surface is of a delicate French grey, and it has the usual black Shrike markings on the head, while the entire under-surface is white; it much resembles the Great Grey Shrike, and is confined to the district south of the Atlas Mountains. It is one of the most familiar and fearless birds to be met with; Canon Tristram noted the habit of perching on the outermost edge of a Palm-leaf over 50 years ago.

Next morning, the 28th, large numbers of Starlings were flying about the Palms opposite the Hotel; they were all of the common species. I did not come across the Sardinian Starling which is not uncommon in many places. White Wagtails and Ultramarine Tits were observed on the other side of the Hotel among the Palms growing there. I walked along the dry river bed and saw a party of House-Martins (*Chelidon urbica*), probably late stragglers, tempted by the bright sunny weather to linger awhile, as the House-Martin appears only to be a migrant here, wintering further south; though both the House-Martin and Swallow may occasionally be met with in mid-winter, their presence here then is to be regarded as accidental. Among the House-Martins were a few specimens of the pretty little Crag Martin (*Biblis rupestris*); this species is resident and may be seen at all seasons; they can readily be distinguished from the Sand-Martin by the absence of the brown band across the breast and by having a white spot on all tail-feathers except the middle pair. Though I passed this place at least once every day during our stay at Biskra, I did not see either species there again. A beautiful Falcon flew along the river course; it appeared to be dull bluish-

grey on the wings, with a whitish under-surface, so it was very possibly a Barbary Falcon (*Falco barbarus*); a solitary Raven and some White Wagtails, which seemed to be the commonest birds about, were noticed. I returned through Old Biskra, where I saw a Senegal Dove fly out of a Palm. In the afternoon I went for some distance along the Sidi Okbar road, hoping I might again encounter the big grey bird I had seen on the 26th, but I only saw some rather small pale-coloured Crested Larks and the ever present White Wagtails.

Next day I visited some Palm gardens just outside the town, where I saw a beautiful cock Moussier's Redstart; it was hopping about in an Acacia bush, and presently flew to the ground, so I could see it well. This lovely little bird is confined to the North-West portion of the African continent; the wings, top and sides of head are black, a conspicuous white band passes from the forehead over the eye, ending in a large patch on each side of the neck, a large alar patch on the secondaries is also white; the rest of the bird, with the exception of the two central tail-feathers which are brown, is a rich tawny orange. The female is dull brown on head and wings and the under-surface is duller than in the male, fading to whitish towards the tail. The bird does not seem to be wild, so may often be watched from a short distance without showing signs of fear. I just caught sight of a large bird with black and white wings sailing over the Palm-trees; if it was not an Egyptian Vulture, I do not know what it could have been. Several Ravens and Goldfinches, a very brightly-coloured Sparrow, and two birds that looked like Stonechats (*Pratincola rubicola*) were seen, and a solitary Swallow (*Hirundo rustica*) was winging its way to and fro just beyond the Palms. This morning a Jay was seen in Old Biskra perched in a Palm tree: I did not see this bird myself, but it was described to me, and a Jay is a bird which cannot well be mistaken. This would be the Algerian Black-headed Jay (*Garrulus cervicalis*), which differs from our bird chiefly by having a black crest and white ear-coverts and cheeks. In the afternoon we drove to the oasis of Chetma. I saw very few birds; we passed a nice pair of Black Chats, and I think I saw a Senegal Dove at Chetma; on the way back I got a good view of a Desert Chat

(*Saxicola deserti*). It kept flying along a ditch by the side of the road, appearing some distance ahead and waiting until I got close to it, when the performance was repeated. I saw a stuffed Bee-eater (*Merops apiaster*) in a shop at Biskra; this bird is exceedingly abundant through Algeria during the summer months. Barbary Sheep may be obtained in the mountains near Biskra, and Gazelles are common.

(To be continued.)

## NESTING OF THE GREY-HEADED SPARROW.

*Passer diffusus*.

By W. E. TESCHEMAKER, B.A.

I am not too sure about the identification of this species—indeed the African Rock-Sparrows are quite a special study. There is a female of this species (apparently) in the Zoological Society's Small Bird-house at present, presented by Dr. Hopkinson, but labelled *Passer simplex*. I am under the impression that the identification of the Zoo specimen is incorrect, but I may be wrong.

Anyway, the subject of the present notice may be described as follows: crown, nape, throat and breast light ashy-grey; back and wings pale brown, median coverts margined with white; rump and tail warmer brown; beak dark horn-colour; irides reddish-brown. Size about that of *P. domesticus*. Note a harsh Sparrow-like chirp. Song none. Disposition savage. Habitat (if correctly identified) N.E. and E. Africa. Constitution hard as nails.

I extracted four of these Sparrows from a large consignment of African birds at Mr. Luer's in June of last year; they are not frequently imported, I think. I turned them out in a small division of the aviary by themselves, and they agreed fairly well until one pair commenced to nest. I rescued one of the non-breeding birds just in time, but the next morning I found in a corner a ghastly object—a thing without eyes, without scalp, without feathers, but still breathing. It was the other unpaired *P. diffusus*.



They built in a nest-box a domed nest, lined with feathers, and laid four eggs of a dull greyish ground-colour with reddish-brown spots. Size: .75 mm.  $\times$  .58 mm.

Incubation commenced on the 21st July, and I saw young being fed on the 1st August. Only one youngster was hatched, but this developed into a fine specimen, being fed solely on insect-food. It was apparently most reluctant to leave the nest—in fact I had it out and examined it once or twice to see if there was anything wrong with it. It finally left the nest on the 25th August, and was then practically as large as the parents and closely resembled the latter, the only points of difference that I noted being the colour of the back and beak, the former being grey-brown and the latter lighter. The white margins of the median coverts were as distinct as in the adults.

The adult hen sat again on the 28th August and, when I parted with all my *P. diffusus* to one of our members, there was another not quite fully fledged youngster which, however, did not survive the journey.

I find that males of this species are rather larger than females and darker round the eye.

I had less trouble with *P. diffusus* than with any other species bred last season, but it must not be taken for granted, I think, that all Rock Sparrows are equally easy to breed. I have struggled with *Petronia dentata* for five years and have not seen an egg yet.

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## TWO RARE EASTERN IMPORTATIONS.

By FRANK FINN, F.Z.S.

A gentleman residing in London, the brother of one of our members, recently asked me to come and see an exceedingly rare bird he had imported from Calcutta—no less than the beautiful Temminck's Robin (*Erithacus komadori*). This is one of the species which was first made known through aviculture, it having been described from caged specimens obtained in Japan. For a long time its native home, which is in the Loo-choo Islands, remained unknown, and even now there are only two skins of it in the British Museum.

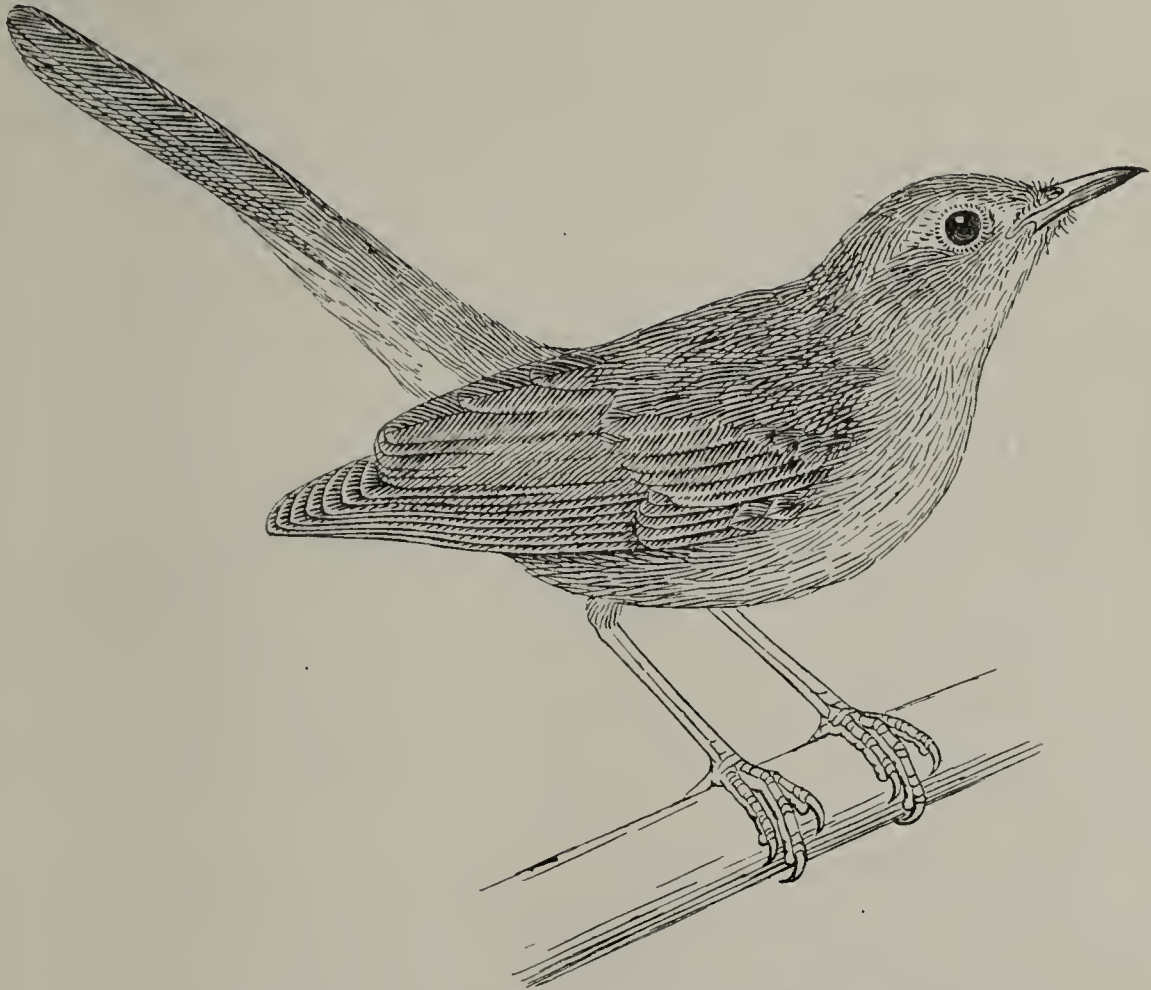
The illustration, drawn from this specimen, and the note below, will give, I hope, an idea of the cock's appearance; the hen has no black, but is mottled below with grey and white. The owner of the bird informs me that it was brought from Japan to Calcutta by a lascar, and fed on the voyage on crushed biscuit moistened with water, so that it is evidently not delicate. It is tame and steady, and frequently sings; the note is rich, but somewhat metallic, and has a character peculiarly its own.



TEMMINCK'S ROBIN (*Erithacus komadori*).  
Size of our Robin; rich orange-chestnut above,  
black and white below.

I was also shown here an Eastern Nightingale (*Erithacus golzii*) the true Bulbul of Eastern poetry, and distinguished in India from the very different birds commonly called Bulbuls by the appellation *Bulbul bostha* or *Bulbul hazar-dastan*. As the illustration shows, it differs from our Nightingale in having a decidedly longer tail, and it is also usually much less reddish in colour, though there is some variation in this respect. It thus

approximates to some extent to the Sprosser, but is more slender and long-tailed; in fact, it is the most elegant of the three Nightingales. Like the Sprosser, it is a hardier bird in captivity than the common Nightingale, and a far more powerful songster,



PERSIAN NIGHTINGALE (*Erithacus golzii*).

though not equal in sweetness to our bird. A good many of these birds were formerly imported into India, and fetched a high price, but I believe the importation has much fallen off, though some are evidently still to be had.

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## ORNITHOLOGICAL RAMBLES.

By H. GOODCHILD, M.B.O.U.

### NO. I. AN AUGUST HOLIDAY IN THE PENNINES.

The two counties of Cumberland and Westmorland possess three main features in common: they divide the Lake District between them, they each have a share of the broad and fertile Eden Valley, and both are flanked on the east by that long buttress of hills, the Pennine Range. The main physical differ-



ence between them is, that whereas Cumberland has a long coast line, the sister county has but an apology for one, in the form of the estuary of the Kent and the adjacent part of Morecambe Bay. Of the three characters they have in common, the one I am chiefly acquainted with is the line of hills on the east, as at the foot of that I had the good fortune to spend some of my early years, and to pass many an Autumn Holiday. Uninteresting as it may look as one passes down the valley of the Eden, and commonplace and featureless in outline as it may appear as viewed from the mountains of the Lake District, in comparison with them, it nevertheless possesses charms of its own, and it is only when one explores its deep cut valleys, or "Gills" as the natives call them, that one realises that its want of interest is more apparent than real.

Following a holiday taken in the height of the summer of 1908, when weather favoured me to the utmost, I was fortunate in being able to alter the time of my visit this year (1909) to August and doubly fortunate in that I was there during almost the only spell of fine weather they had, the summer and autumn through.

Leaving Hoddam Castle on the 2nd of August, after having had the pleasure of drawing and painting some of Mr. Brook's superb collection of Malayan birds, I travelled southward down the Midland line to a station opposite the highest part of the Pennines, and only about five miles distant from the summit of them. Walking up from the station, I heard, as I neared the village I was to stay at, a Corncrake grating, this being the only time I heard the bird, although it is one that is heard all around from the grass fields at Midsummer.

Circumstances permitted my commencing my observations at once, and on the Tuesday I made direct for the hills, stopping in the "fell lane" to make notes of a Wren sitting on a stake in a hedge and carrying his tail level as any other bird might do, and to make a sketch of a Whitethroat which I started from a bed of thistles and which flew off looking very much surprised.

The dull skies which had prevailed through July were showing signs of brightening, though in the meantime we were fain to be content with merely an absence of rain.

A Tit was heard but was not seen, so likewise was a Chat of some sort. I was now on the open moorland and might expect to see not only the Meadow Pipit, which abounds on these grassy uplands, but Red and even Black Grouse, although of the latter only a few are about. Two Woodpigeons were seen and a pair of Pipits, but no Grouse of either species. The afternoon was taken up in visiting the cultivated ground to the south of the village and here I found much of the hay still uncut, although it was about a month after they usually begin the hay harvest. In one field which was half cut, but in which no one was working at the time, I saw four Woodpigeons hunting over the swaithes of freshly cut grass. In a neighbouring plantation of Scotch Fir I saw six or seven Chaffinches feeding together in one of the trees, and not far off recognised the Sand Martin, which in this district only breeds in one place that I know of, viz. in the soil at the top of an abandoned quarry of red sandstone. The Hedge Accentor was seen and the Yellow Bunting heard. A small patch of primæval moorland adjoined the plantation, and on this the Curlews bred, I believe, in peace and safety, for I found them very common on it and saw several at once, and also some Peewits. This moor contained a very slight green valley, only some ten or twelve feet deep and about as many yards wide in its upper part; no stream flowed in ordinary times, yet there was a small pond in it with clumps of rushes growing about it. On my last previous visit to this district, in June 1908, a young friend and I had gone to this pond towards dusk and had been much puzzled by an object we saw in a clump of rushes growing in the water: my friend was the first to guess what it was, and proved right. It was a Water-Hen, the only one I ever saw alive in these parts, which was seeking safety by crouching with its head in amongst the rushes, but which had left its conspicuous white feathers exposed towards the prowling naturalists; had it gone the other side of the clump and faced towards us, only thrusting its head into hiding, we should most likely not have seen it, as the brown upper surface would have been sufficiently subdued to have passed for a clod of earth. On the present occasion, however, no Water-Hen was seen, but I found two of the large feathers of the Heron and searching around found twenty more, of all



shapes and sizes; I also found feathers of the Curlew and the Peewit, so it seemed to be a favourite resort with them.

On Wednesday, August 4th, there was a high wind and a cloudy sky, and I noticed a Curlew being blown about over the fields near the village. Further out I saw several Chaffinches, all apparently females, hunting over the swaithes of newly cut hay. Not only many Chaffinches, but two or three Yellow Buntings, a Hedge Accentor and a Redstart came to pick up what they might, and these were soon joined by a Common Wren, a Willow Warbler and an immature Greenfinch. I could not be sure what they were after, but I do not doubt that the finch and bunting as well as the insectivorous birds were searching for such flies and other insects, or their larvæ, as were disturbed or exposed by the newly mown grass.

From the higher woods, at the foot of the hills, I heard a cry as of a Kestrel, but a long search with the glass, from a distance, failed to show the bird that made it. Just as I was coming into the house at lunch time I heard a Greenfinch singing, in what I put down at the time as "full song."

In the afternoon I again went over the cultivated ground and cautiously approaching the field where the day before I had seen the Woodpigeons hunting the new mown grass, searched its further parts for any interesting birds it might contain; in this way I got right up to the fence enclosing it, still prying into its far corners, when suddenly a tremendous whirr sounded almost under my nose and, putting down the binocular, I was chagrined to see a covey of about fourteen Partridges which had been squatting close to the fence amongst the cut grass, and which I might have seen crouching had I only looked close to my feet instead of surveying the distant sides of the field. These Partridges flew over towards our local mill-dam, but although I went in pursuit I saw nothing more of them. This dam, being sheltered both by a bank and by trees, was secluded and seemed a favourite spot with Herons, as several times I found their feathers about it; but this time as I searched round it, I found none. From here I went to the plantation beforementioned, in the hope of finding Owls or Goldcrests. I saw a Squirrel, which sat on a bough about forty feet above the ground, apparently



enjoying a *dolce far niente* and which took no notice of me though I stared at it with the binocular, and a few Woodpigeons. The only other birds really seen were Chaffinches, although I heard the cheep of birds which I thought must be Goldcrests. Nearly all the feathers found were those of Woodpigeons, but one might have been from a Sparrowhawk's alula, and another, a downy feather from an Owl. In the evening I only heard Greenfinches singing and Partridges calling, as I was only out for a short time.

On the Thursday, Chaffinches and Willow Wrens were seen, and a Great Tit, whose churring notes I at first took for those of a Blue Tit; these on the way to the moorland, where however, I saw no Grouse, but only a few Rooks stalking about, and heard a Willow Wren singing from some trees bordering the highest lying hayfield in the country.

A Kestrel was seen hovering near the top of one of the foot hills, about 1,400 feet high; and three birds I took to be Ravens, but which were nearly a mile off and therefore could not be identified by sound, circled over a small valley at the base of it, while a Peewit was noted on the flank of another steep hill close by. As I approached a curious flat-topped hill composed of shale, overlooking the confluence of the two streams my brother and I most often fished, I flushed a Meadow Pipit from among the beds of bracken fern, and arriving at the top about mid-day, sat down to rest. This day proved to be the first of the hot weather we were to enjoy and so unaccustomed was I to heat, that I spent an hour in going a distance of about two miles over nearly level though somewhat rough ground, and even then felt oppressed.

From the top of this hill I searched with my binocular the rough, rushy pastures lying to the South where I knew the Black Grouse nested and saw four birds at a distance of a thousand yards or so, which might have been Greyhens, but, although I watched the birds closely, I got no clue from comparison with Curlews or Peewits to their actual size, and so left their identity an open matter.

My objective this time was a waterfall in one of our best trout streams, where the beck reached fairly open ground after

passing through one of our finest mountain valleys, distinguished by the local people as Gurt Deäl. My search for the particular waterfall did not succeed and I settled down to make a sketch of another instead. A Kestrel was seen flying over the valley at 1.20, and a pair was seen about 1.30 over a spur of a hill near, and a male in adult plumage came and hovered near me, close enough for me to see with the binocular his tail spread out like an open fan, and his alert, bent-down head. This bird flew down to the side of the hill I had rested on, and perching on the steep side near the top, remained there and preened. Twice it flew up and returned before finally leaving. A Carrion Crow came down the dale and flew backwards and forwards past the most conspicuous limestone crag in the neighbourhood, with something which might have been an egg in its bill, but disappeared over the skyline of the mountain above me without coming near. In the afternoon, a Dipper gave me a chance of sketching it, as it perched on a boulder in a side stream, and after drawing it, I noted four Carrion Crows round the scar where I had seen the one earlier on. Turning my steps homeward, I stopped to examine the skyline of the scar in its most prominent part and saw either a Raven or a Carrion Crow sitting so that it appeared against the sky. This bird soon began to preen and I watched it at intervals as long as I remained within sight. My last item for the day was the flushing of two Partridges, seemingly adults, in one of the rough pastures, on my way home.

*(To be continued).*

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## REVIEWS.

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### ESSAYS ON WILD LIFE.

ANIMAL ROMANCES, by GRAHAM RENSHAW, M.B., F.Z.S.

London: SHERRATT and HUGHES, 1908.

"If you draw your beast in an emblem, show a landscape of the country natural to the beast . . . . in this work an attempt is made to present [animals] as actually living and moving before the reader. . . . these forewords were written on the author's last African trip; it is hoped that some of the

sunshine of the wilderness has been transferred to its pages." These extracts from the preface of Dr. Graham Renshaw's last volume, tell in his own words the purpose underlying the twenty-two essays that compose it. But it is by no means only the sunshine of the African wilderness that transfuses its pages. He takes his reader from the snows of the Caucasus to the tropics of Further India; from East Africa, the last and greatest game preserve of the world, to the ice-floes of the antarctic; from the antipodes and the coral islands of the Pacific to the prairies of North America, and back even to the times of the Mammoth and ancient Briton, describing in graphic language and vivid imagery what might be, or might have been, seen and heard of the animal life in the space of twenty-four hours by an individual watcher alone with the beasts and birds. It would be fulsome praise to say that Dr. Renshaw can write like Major Leveson at his best; but I cannot pay him a higher compliment than by saying that his book repeatedly recalls to my mind part of a chapter in "The Hunting Grounds of the Old World," where a day in the Indian jungle is described by the pen of a master, stamping indelibly upon the imagination the scenes it attempts verbally to depict.

R. I. Pocock.

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### THE JACAMARS.

GENERA AVIUM, Conducted by P. WYTSMAN. *Picariæ* Fam. *Galbulidæ*  
by P. L. SCLATER. Brussels, 1909.

The Jacamars are related to the Toucans, Barbets and Wookpeckers, resembling them in many characters besides the structure of the feet which belong to the type called 'zygodactyl.' Although in its strict etymological sense 'zygodactyl' simply means with united toes, the term is not applied by ornithologists to webbed feet but to feet in which the inner and outer toes are turned permanently backwards while the two middle toes retain their usual forward direction. This type of foot has been independently acquired by distinct kinds of birds, perhaps the best known to aviculturists being the Parrots. It is obviously an adaptation to an arboreal as opposed to a terrestrial mode of life, since birds which possess it are expert climbers but clumsy walkers on the ground.



The Woodpeckers and Barbets are widely distributed ; but the Jacamars (*Galbulidæ*) and their near allies the Puff-Birds (*Bucconidæ*) and the Toucans are only found in tropical or sub-tropical America. The Jacamars recall the Bee-eaters in appearance, with their brightly-coloured often metallic plumage and long somewhat-slender bills. They frequent the edges of forests or open glades and feed upon insects. They are not uncommonly found near streams and nest in holes in the banks. There are some twenty different kinds known, and these form the subject-matter of the memoir under notice. Those who are acquainted with Dr. Sclater's scientific papers will recognise in this treatise his happy knack of grasping the essential character of species and of expressing them with a combination of brevity and lucidity which very few authors can equal. R. I. P.

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### INDIAN BIRDS.

BEING A KEY TO THE COMMON BIRDS OF THE PLAINS OF INDIA.

By DOUGLAS DEWAR. London 1909: JOHN LANE. 6s. net.

There has been no better book on the fauna of any large area than Blanford's volumes on that of India, but four volumes on birds are a rather large order to carry about, to say nothing of the difficulties beginners find with books like this, and Anglo-Indians and those visiting India will welcome Mr. Dewar's most light and handy work, which is destined to serve as a guide to the larger book, dealing with the commoner species only ; for after these are learnt, as the author says, it becomes easy to locate the rest.

The book is most ingeniously arranged, the first part being occupied by keys destined to facilitate birds by some conspicuous peculiarity of colour, form, note or action. Thus there are lists of crested birds, forked-tailed birds, birds with black heads, birds with yellow, pink, blue, etc., in the plumage, and if the subject of one's search is not identified by means of one of these keys, there is always a good chance of "spotting" it with another.

In the descriptions of the birds dealt with, which follow, the size is estimated by comparison with some very familiar

species, such as the Sparrow and Crow, and these birds of comparison are indicated by letters; the Sparrow, for instance being I, while a bird larger than a Sparrow and smaller than a Bulbul goes as I+, and a smaller bird than a Sparrow as —I; a very ingenious idea. Long tails are treated as extras.

No less than 231 species are dealt with, so it will be seen that the work is comprehensive enough, although birds regarded as game are for the most part omitted, such birds, as Mr. Dewar remarks, being usually shot on sight and readily identifiable by other manuals which exist, while his book is intended to facilitate the identification of ordinary, everyday birds by those who have no wish to shoot them. Mr. Dewar points out that it is quite likely that he has omitted some birds which are locally common, but I only miss very few of my feathered acquaintances, chiefly the Blue-cheeked Barbet (*Cyanops asiatica*) and the Jungle Mynah (*Aethiopsar fuscus*), while, though my experience of India was far less wide than his has been, I have come across most of the kinds he mentions. I think, therefore, he has covered the ground completely, and I recommend his book to all who wish to take up the study of what I am convinced is the most interesting avifauna of the world, if only because it has been less disturbed by man—in spite of an ancient civilization—than any other.

F. F.

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## THE VERTEBRATE FAUNA OF CHESHIRE AND LIVERPOOL BAY.

Edited by T. A. COWARD, F.Z.S. 2 vols. illustrated. London, 1910, WITHERBY & Co., 26s. net.

The bird section—with which alone we have here to do—of this beautifully-produced and exhaustive work is by Messrs. T. A. COWARD and C. OLDHAM, F.Z.S., M.B.O.U., authors of "The Birds of Cheshire," and is replete with interesting information, the outcome of careful and conscientious observation, the food and habits of the birds receiving especial attention.

Cheshire is favoured by the presence of an unusual number of interesting species, and the authors have utilized their opportunities of observation to the full. It is particularly pleasant to read of a Grey Phalarope being observed at intervals

of ten days, instead of being killed as usual, and one interesting note on it was that it took food when on the wing as well as when swimming.

It is interesting to read that that grand bird, the Canadian Goose, is breeding freely in a perfectly wild state on Cheshire waters, and that flocks of hundreds may be seen at times in winter. This bird will at this rate, probably have to be put on the game list shortly if it is not treated in this way already, for geese in abundance are not by any means friends of the farmer; but we could very well do with it as a game species.

An observation to the effect that two domesticated Shelldrakes were killed by foxes is worthy of notice, in view of the statement made by a continental author that Sheldrakes will nest in Foxes' earths even when Reynard is in occupation. It is evidently no repugnance to the flesh of this bird, unpalatable as it to most people, which causes this forbearance if the story is really correct.

Another interesting note concerns the persecution of a Pied Flycatcher by one of the common spotted species; if this is usual it may explain why the former bird is so local in this country, but the relations of allied species to each other, although probably of great importance with regard to geographical distribution, have been but little worked out. The book is full of suggestive observations such as these, and I cordially recommend it to all members.

F.F.

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## EGGS AND NESTS OF BRITISH BIRDS.

By FRANK FINN.

London: HUTCHINSON & Co., 1910.

Price 5/- net.

The above title has been given to a very handy volume which Mr. Finn has added to his series of useful handbooks. In size it is not too large to carry in the pocket, but it contains an enormous amount of useful information to the student of British Birds' nests and eggs.

There are about thirty plates of eggs, of which the majority are coloured by the three-colour process direct from the eggs themselves, the finished illustrations being very true to nature, though we think the appearance of the plates is somewhat



marred by the dark-coloured background that has been adopted. White and plain-coloured eggs have been figured by ordinary black and white plates.

Turning to the text, we find a description not only of the nest and eggs of each species, but the birds themselves are described, an excellent arrangement since, in many cases, to satisfactorily identify eggs one must first be able to see and identify the bird that laid them.

The arrangement of the species is somewhat unorthodox; instead of the recognised systematic order being followed, the birds are arranged in groups such as "In Towns and Gardens," "By Wayside and Woodland," "By the Waterside," and so forth. This arrangement has something to commend it in the present book, which is intended, we take it, rather for the beginner than for the experienced naturalist, though even in this case it is doubtful whether the recognised system would not have been preferable.

We cannot agree with the author when he says that probably *any* of our lost breeding species might be restored by artificial introduction. Doubtless this would be beneficial with such species as the Kite, as the few remaining pairs in Wales, its last stronghold in Britain, are very in-bred, and the introduction of some new blood from abroad might give the species a new lease of life. But in the case of the majority of disappearing British birds, their threatened extermination is due to cultivation and drainage, and the reintroduction of such species would be entirely useless.

With these few comments we leave the book to our readers with the assurance that they will find it an exceedingly useful addition to their libraries.

D. S.-S.

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### OUR SEARCH FOR A WILDERNESS.

By MARY BLAIR BEEBE and C. WILLIAM BEEBE. HENRY HOLT & Co.,  
New York, 1910. \$2. 75 cents. net.

In this handy and beautifully-prepared volume, illustrated by numerous photographs, our member, Mr. C. W. Beebe, and his wife relate their adventures and observations in out-of-the-way parts of tropical America and its islands, Trinidad; Venezuela, and the little-known interior of British Guiana. In the

first locality they stayed at a settlement on the renowned lake of pitch, one of the wonders of the world, and in the latter enjoyed excellent opportunities of studying the Hoactzin (*Opisthocomus hoazin*) and would no doubt have succeeded in introducing this most remarkable bird to aviculture, had not Mrs. Beebe had the misfortune to break her wrist by a fall from her hammock, which necessitated an immediate abandonment of the expedition. Fortunately the accident had no serious consequences, Mrs. Beebe having made a rapid and complete recovery.

The book is replete with observations of the greatest interest, not only on birds, but on beasts, on reptiles, fish, insects, and the local types of humanity. Many of the birds dealt with are, of course, familiar to aviculturists, such as Toucans, Parrots, Hang-nests, Tanagers, and the various South American Finches; and the accounts of these will be read with especial eagerness and interest by those of our members who are wise enough to acquire this book. Many birds were secured for the New York Zoo by the expedition, and interesting accounts are given of the methods of capture employed; the following, for instance:

“A cage containing a Yellow-bellied Calliste was one day placed in a tree about twenty feet high, and limed twigs arranged on neighbouring branches. In two hours in the morning, two specimens of the same species, three Blue Tanagers, two Black-faced Callistes, two Toua-touas or Brown-breasted Pygmy Grosbeaks, and one Yellow Oriole were taken. The various species of Tanagers and Orioles are much more gregarious in feeding habits than the Finches, hence the variety caught. The Toua-touas were purely accidental visitors. The Finches are rarely taken by a call-bird not of the same species.”

Mention is wisely made of the difficulties in catching in the tropics, owing to the liquefaction of bird-lime by the mid-day heat, which is also dangerous to the call-birds. Among the appendices is a very useful one giving the native Guianan names of birds, and the descriptions often given of the various birds mentioned in the text are so good that any aviculturist going to these regions armed with this book would be able to recognise many at all events of the new friends he would meet with.

F. F.

## BRITISH WARBLERS.

"THE BRITISH WARBLERS: A history with problems of their lives."

By H. ELIOT HOWARD, F.Z.S., M.B.O.U. Part IV.

London: R. H. PORTER, 7, Princes Street, Cavendish Square, W.

Price 21/- net.

The fourth part of Mr. Eliot Howard's beautiful work on the Warblers is now published and is in every way equal in quality to the three preceding parts. The species dealt with are the Whitethroat, Lesser Whitethroat, Greenish Willow Warbler and Siberian Chiff-chaff. Five excellent coloured plates and six photogravures, all by Henrik Grönvold, are well up to the standard of those of the previous parts and add very materially to the value of the work.

Never has a book been written in which the life-history of a group of birds has been more fully treated than in the present instance, and the author introduces his readers to many habits and problems in the lives of this charming group of migrants which will be quite new to most people.

The author is undoubtedly a rare good observer, and from the day of the arrival of a Warbler in his neighbourhood, he carefully notes its habits. In the case of the Whitethroat for instance, the males precede the females by several days as a rule. Each male takes possession of a certain territory, and sometimes even constructs a nest in readiness for the female upon her arrival. Severe battles take place between individuals of the same sex if they cross one another's boundaries. The various attitudes of display, courtship, and so forth, as revealed to the reader of Mr. Howard's book, are highly interesting and extraordinary.

The species dealt with, with the exception of one or two, which can only be regarded as rare stragglers, are all treated in the same thorough style, nothing of any importance in their economy having apparently escaped the author's observation.

D. S.-S.

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## CORRESPONDENCE, NOTES, ETC.

NOTES ON THE PINTAILED WHYDAH, GIANT WHYDAH,  
RUFIOUS-BACKED MANNIKIN AND BLUE GROSBEAK.

SIR,

## (i) NESTING OF THE PINTAILED WHYDAH.

Dr. Butler having asked me to obtain some further particulars of the event mentioned in my notes on *Chera progne*, I wrote to our member, Mr. W. T. Page, who inspected the aviaries in question shortly after the young were said to have left the nest. Mr. Page has very kindly written me as follows:—"The facts are simply these. The roof of Mrs. A.'s aviary was covered with spherical nests of Weavers, Whydahs and Finches: she pointed to quite a group of nests close together—all of one character, *i.e.* merely spherical. Mrs. A. said at the time her impression was at first that the parents were Finches, but, among a crowd of birds, I thought the evidence too inconclusive and did not bring it forward, as afterwards she saw the Pintails feeding. Practically the only intimation she had of them was seeing the young—in fact the nests were so thickly placed under the roof among the branches, in husks, travelling cages and the like that it would be most difficult to locate the young." The original reference to this occurrence may be found in *Bird Notes*, Nov. 1909, p. 257. I fear the above data do not throw much further light on the interesting question of the alleged parasitic habits of this species which Dr. Butler has referred to. It will be noted that the owner first thought the young were being fed by Finches and subsequently by the Pintails.

It is not probable that both these observations can be correct, and, if one is incorrect, then both may have been so. A possible explanation of the matter is that the Pintailed Whydah may only be occasionally parasitic, and this hypothesis would not of course be disproved by the fact of its rearing its own young in an aviary (even if the fact were well attested) because, under these unnatural conditions, the parents might not easily find a suitable host. It should be noted that Haagner in his latest work apparently accepts Austin Roberts' statements as conclusive, although he must of course be well acquainted with Stark's and Shelley's description of the nests and eggs (cf. *Sketches of S. African Bird Life* p. 72). I am not in any way opposed to Dr. Butler's view: all that I wish to point out is that I do not think he is justified in saying (p. 134) "if no Waxbills were present in the aviary in which the Whydahs were bred the only suggestion of Mr. Roberts which now remains to be disproved is the character of the eggs." We have evidence that some young Pintails were bred in an aviary, but not as to how they were bred, and, further, according to Haagner (I have not seen the original paper) Roberts did not say that this species was parasitic only on Waxbills.

The question of the colour of the eggs, however, ought to be easily settled by an aviarist and, if it can be shown that they are not white, then of course Roberts' observation is *ipso facto* discredited. Why does not Dr. Butler settle this question once and for all by breeding this species? He has leisure, suitable aviaries and more experience than any of us.

(ii) THE BLUE GROSBEAK.

Perhaps I may be permitted to add a postscript to my recent notes on this species. On 11th Feb. I caught up the young male and examined it carefully. It had only two very small blue feathers on each side of the throat—so small as almost to require a magnifying-glass to see them. As this bird had an extensive, and apparently natural, moult in October last this fact marches well with my suggestion that the young of this species do not assume the adult plumage till their third season. It has not sung as yet.

(iii) THE GIANT WHYDAH.

The young male of this species went through an extensive moult in November, casting the whole of his tail, many of the flights and some of the body-feathers. Towards the end of the month I first heard him singing, and he has continued to do so at intervals throughout the winter. The song is not so loud as that of an adult male, but of the same character. The song itself and the attitude of the singer, with quivering and partially outspread wings, are essentially Weaver-like.

14th May.—I have been much interested in Mr. C. J. Davies' letter in the May issue re the wild habits of the Giant Whydah, and am glad to find that his observations lead him to agree with my suggestion that this species may not be always polygamous. If someone could tell us what [numerical] proportion the females really bear to the males in an ordinary flock in the winter one would be better able to form an opinion. The fact that so very few females are imported might lead one to suppose that the females are actually less numerous, but a correspondent who trapped and imported some Giant Whydahs wrote me that the explanation of the scarcity of imported females is that the males perch in conspicuous places on bushes, and are therefore easily taken with bird-lime. He found it impossible to catch any females because the latter always took shelter in the long grass.

It would be a very interesting experiment to test the alleged polygamy of this species by associating two males and two females in one aviary. Our member Mr. W. Willford purchased my adult male and the adult and young females, and it is just possible that in the large division of his aviary, which I understand is no less than fifty feet square, the adult male might tolerate the presence of his son and heir. I am keeping the young male to ascertain at what age he may come into colour and, should he do so this summer, I shall have no further use for him and shall be only too pleased to present him to Mr. Willford for this purpose.

I may here mention that this young male has recently succeeded in



learning the song of the Blackcap, which is certainly quite the oddest imitation in the way of bird song that I have ever come across. I may also mention that on the 6th May when I had occasion to catch him, he tried very hard to frighten me by emitting the loud hissing Weaver-ish note which, as I have already pointed out, adult males adopt as a means of defence.

I am glad that Mr. Davies has at last given us an authoritative translation of the native name, *Isakabula*, because I have at various times come across no less than three versions, each quite different.

(iv) THE RUFOUS-BACKED MANNIKIN.

I kept some of the young in a cage in my sitting-room for some time to see how they assumed the adult plumage. All those bred in the early part of the summer completed the change in one month (except as to the colour of the beak and a few of the primaries) but one bird bred towards the end of the season has retained a kind of intermediate plumage, the head not having become black. I find that they undergo a complete moult of every feather except as to the back from the neck to the rump. Here, however, I could detect no sign of a moult, although I handled them constantly, and yet the shade gradually changed from mouse-colour to rich, dark chestnut. I can only conjecture that in this case there was an actual change of colour. I say "I conjecture" because I know that many have denied the possibility of such a change, and it would certainly be most difficult to prove.

W. E. TESCHEMAKER.

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A SUGGESTION.

SIR,—As the satisfactory cageing of Eagles, Vultures, etc., has for long been a matter of much difficulty, I venture to put before you a suggestion which, doubtless, many will consider a mad one, though nobody can deny it would be novel.

Most readers are familiar with the tape-measure that winds itself up by a spring when released, after having been pulled out to its full extent. Could not the same principle be applied by tethering an Eagle or Vulture in the open, so that it could have the space to fly aloft?

The length of flight could be controlled by the amount of cord wound on the cylinder, and the strength of the spring, in conjunction with the weight of the rope, could be so arranged that the bird would be unable to pull it out to its full extent, and so receive a severe check in mid-air.

On returning to earth, the coil of cord would automatically wind itself up. To prevent the bird from severing the cord and to give it a certain amount of freedom when on the ground, it would be necessary to have several yards of strong but light chain fixed to the end of the cord, with a button or some kind of stop, placed at the junction to prevent the chain becoming wound up on the cylinder.

R. Z. S.



## AUSTRALIAN PARROTS.

SIR,—I know many of your members keep Australian Parrots. As I am working at the Birds of Australia, and shall be for many years, I should be glad to receive any dead birds, and will pay any expenses connected with having them sent to me.

I especially want *Cyclopsittacus coxeni* and *maccoyi*, *Spathopterus alexandracæ*, *Platycercus mastersianus*, *Psephotus pallescens*. *P. pulcherrimus*, *P. dissimilis*, *P. chrysopterygius*, *P. cucullatus*, *Neophema bourkei*, *N. chrysogaster*, *N. splendida*, and *Geopsittacus occidentalis*.

Lanley Mount,

GREGORY M. MATHEWS.

Watford, Herts.

## MR. FROST IN DEMERARA.

Most of us have probably read of our member Mr. W. Frost's safe return to Demerara in our press, but the following from the *Demerara Daily Argosy* for April 10th, kindly supplied by Mr. E. W. Harper, will be of interest, no doubt.

"Mr. Wilfred Frost has just returned from his journey into the interior in search of the beautiful bird that occurs there, the "Cock of the Rock." He has succeeded where others have failed, for he has brought back with him six living specimens. Their capture, however, entailed a vast amount of labour and hardship, and at times there was even danger to life and limb.

Mr. Frost, who is big and stalwart, and possesses the true spirit of the hunter, is the representative of the well-known naturalist, Sir William Ingram. Some months ago, he brought "Birds of Paradise" from New Guinea to Tobago for Sir William, and at the beginning of January he commenced his quest of the "Cock of the Rock," only stuffed specimens of which are to be seen in museums. He was accompanied by Mr. Alfred Winter, who has spent many years in the interior, and, therefore, was in an excellent position to act as guide and general adviser.

The destination of the party was the Merrimai range of mountains. This is where the "Cock of the Rock" abounds, and the party were fortunate in getting there just at the time the birds were nesting. This made their capture easier, but, all the same, it was not achieved without some difficulty, the birds being extremely shy. A number were caught by the Buck Indians, but they died, and the six brought to Georgetown were captured by Mr. Frost himself, who is an expert in the art of bird-catching.

The journey into the interior was toilsome and trying; but the return journey with the birds was even more so. For days at a time, the party's progress was stopped by forest swamps, which because of the heavy rain, rose almost breast high. Then, the bush was almost impenetrable at parts, and the greatest difficulty was experienced in getting along. By water the usual danger was incurred when the numerous falls were taken. On one occasion, the Buck Indian at the bow of the boat, fell overboard, but

managed to swim ashore at a point lower down. At another time, the party's boat ran on to a submerged buoy and stuck. The Indians swam ashore, and attempted to pull the canoe off by means of a rope. As they pulled, the boat tilted over, until the water poured in. At this, Mr. Frost, who had been holding down the cages in order to prevent them toppling over with their precious prisoners, sprang out on to a log, thinking, to use his own significant phrase, that "all was up." This action apparently was all that was required, for the boat floated off, and Mr. Frost got inside again.

Mr. Frost speaks with pleasure of his experiences in an Indian village. This consisted of two long houses, and into one of them Mr. Frost and his party went without any ceremony whatever. The occupants were somewhat surprised, but they soon made the strangers "feel quite at home," and treated them in the most hospitable manner all the time they remained. Mr. Frost describes the house or hut as very dark inside, there being no windows. The roof was low, and, as Mr. Frost stands 5 feet 10 inches in his stockings, he could never stand erect when within doors. The inmates were kindness itself, sharing generously whatever food was going—and there was plenty of it, game being very plentiful. 'I have never come across a better lot of people than the Indians I met with there.' That is Mr. Frost's tribute to them; and Mr. Winter says it is certainly deserved."

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## THE SOCIETY'S MEDAL.

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Mr. W. E. Teschemaker now has a claim to the medal for breeding the GREY-HEADED SPARROW (*Passer diffusus*).

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## POST MORTEM EXAMINATIONS.

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### RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr ARTHUR GILL, Lanherne, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case, *and a fee of 1/- for each bird*. If a reply by post is required a fee of 2/6 must be enclosed. Domestic poultry, pigeons and Canaries can only be reported on by post.

ROOK. (Miss E. M. Crowfoot). The bird died of fractured skull.

STARLING. (Mr. Wm. S. Baily). Bird died of apoplexy. Your feeding is too fattening and should advise you to read Dr. Butler's book on the subject.

LAVENDER WAXBILL. (Mrs. I'Estrange Malone). Bird suffered from acute inflammation of the liver and jaundice.

ROSEATE COCKATOO. (Mrs. L. Sturton Johnson). The bird died from acute inflammation of the bowels.

CALIFORNIAN QUAIL. (Mr. Moerschell). The bird had a large abdominal tumour, he was much emaciated. Death was due to syncope.



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JULY, 1910.

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## NOTES ON THE AGE OF BIRDS IN CONFINEMENT ;

WITH A FEW PRACTICAL NOTES ON THEIR MANAGEMENT.

By J. LEWIS BONHOTE, M.A., F.L.S., F.Z.S.

So little is known of the normal limit of age in birds, and accurate observations relating to the age attained are so meagre, that it is hoped that these short notes, for the accuracy of which I can vouch, may be not without interest. I have kept birds alive since 1893. In 1896, however, my aviaries were broken up and, with the exception of two individuals which I was afterwards able to trace, I have been unable to follow the subsequent career of any of my former birds. In 1899, on my return from abroad, I again started my aviaries, and since then I have, as before, kept accurate records of all my birds. These notes therefore show the age to which certain species can live, but in no case can it be said that they show the normal length of life, for, with the exception of one drake of eleven years, to which reference will be made later, none of the birds still living show signs of old age, and I cannot recall a death which could be attributed definitely to that cause.

My notes on the small birds are remarkably scanty, as, owing to the difficulty of identifying any particular individual, records of their deaths were not kept. We know, however, that many pet finches have lived 15 to 18 years, doves also reach from 18 to 20 years, and a few records of Gulls, Owls and Parrots run still higher.

In looking through these notes care must be taken not to generalize, as the average of age in the different families may be

largely due to their adaptability to confinement. For instance, most of the Waders seem to die after two or three years, and it might be presumed that they are normally short-lived, till we also note that one Oystercatcher has lived seven years and three months and is still living in splendid health and condition.

For the rest, the notes tell their own story. No records (with one or two special exceptions) of less than a year have been taken, and in spite of their admitted imperfections, I hope other readers may be induced to give us some of their records, as only by an accumulation of accurate facts can we hope for definite knowledge.

Short notes on the breeding and management of many of the species have also been added in the hope that they may prove useful to others.

1. SONG THRUSH (*Turdus musicus*).

5 years 5 months and 4 years ; both still living.

This species has nested and hatched in confinement, but owing to insufficiency of live insect food the young were not reared.

Both the Continental and English forms of this species have been kept and retain their distinctive shades of colour.

2. REDWING (*Turdus iliacus*).

1 year 2 months.

This is the only example of this species I have ever kept.

3. ROBIN (*Erithacus rubecula*).

1 year 3 months.

4. EGYPTIAN GREAT REED WARBLER (*Acrocephalus stentoreus*).

1 year 2 months ; still living.

5. BEARDED REEDLING (*Panurus biarmicus*).

1 year 4 months to 2 years 5 months ; five examples.

This is a distinctly delicate species in confinement ; they should have a liberal diet of soft food as well as seed and should *not* be kept in a warmed aviary. They nested and hatched in my aviaries in 1895, but did not rear. (See *Avic. Mag.*, first series, Vol. VI., p. 213).

6. GREAT TIT (*Parus major*).

About 8 months.

This species laid, but owing to the death of the male bird the eggs were not incubated.

7. PIED WAGTAIL (*Motacilla lugubris*).

1 year 1 month.

I have kept very few Wagtails, but they are not very delicate birds if kept in a suitable aviary and supplied with a variety of food.

8. TREE-PIPER. (*Anthus trivialis*).

1 year 3 months.

9. TREE-SPARROW (*Passer montanus*).

7 years, 11 months; still living.

This bird appears in this list, as by far the longest-lived of my Passerine birds; this is however due to the fact that I have only had one pair of this species in my possession and am thus able to state its age with certainty. They hatched and reared their young successfully on one occasion.

10. GREENFINCH (*Ligurinus chloris*).

I have kept many of these birds. They are long-lived and breed very freely in an aviary.

11. CHAFFINCH (*Fringilla cœlebs*).

2 years 5 months.

They nest freely in an aviary, but owing to lack of live insects do not rear.

12. MEALY REDPOLL (*Acanthis linaria*).

2 years 3 months.

13. REED BUNTING (*Emberiza schœniclus*).

1 year 7 months.

14. SNOW-BUNTING (*Plectrophenax nivalis*).

3 years 2 months.

These birds laid and hatched but failed to rear. They do not assume their adult plumage till their second year.

15. STARLING (*Sturnus vulgaris*).

4 years; still living.

This note refers to two birds reared from the nest. They laid in their second summer but did not attempt to build a nest. Bird catchers tell the hen bird by the presence of a dull white ring round the iris, a 'tip' which I have tested on many individuals and never known to fail.

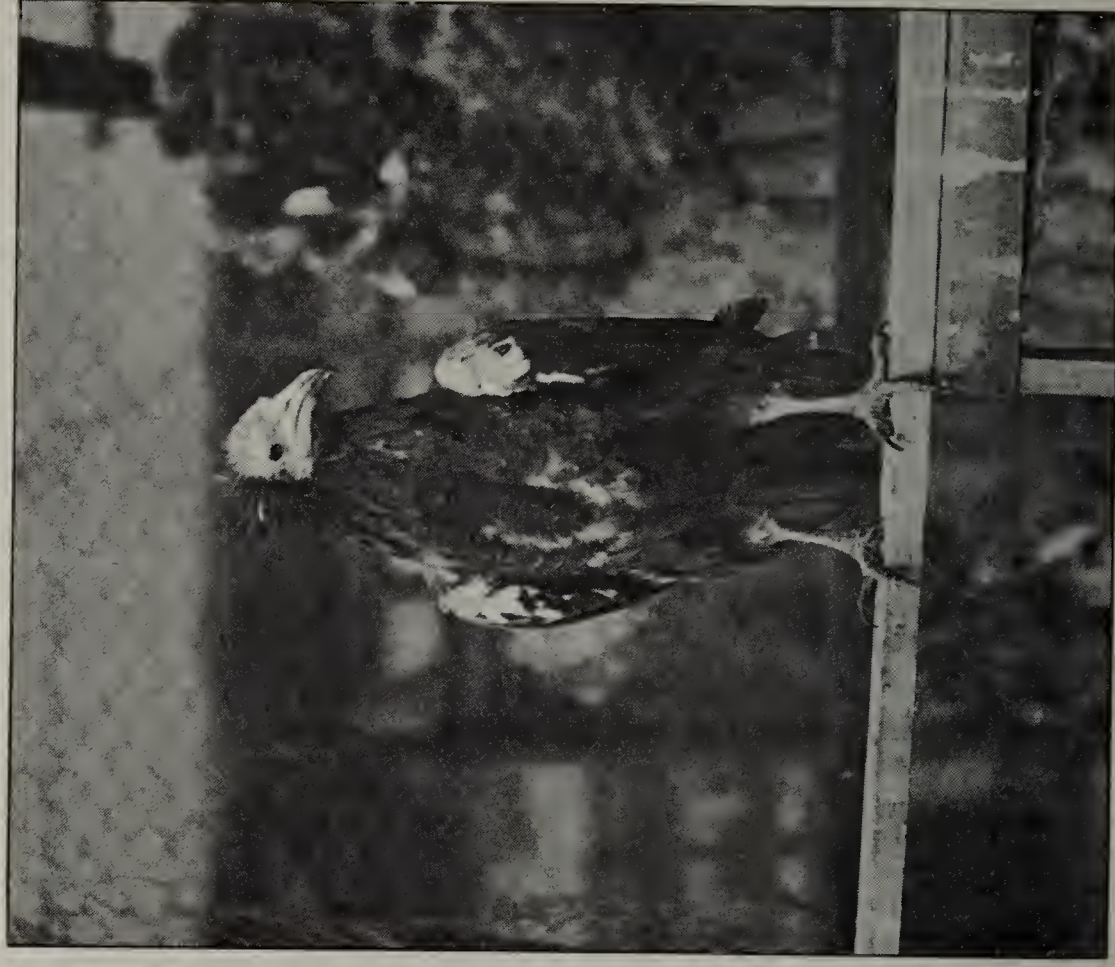


16. HOODED CROW (*Corvus cornix*).  
2 years 3 months and 3 years ; two examples only.
17. MAGPIE (*Pica pica*).  
1 year 1 month.
18. JAY (*Garrulus glandarius*).  
1 year 1 month.
19. GREAT SPOTTED WOODPECKER (*Dendrocopus major*).  
1 year 6 months, when it escaped.
20. LAUGHING KINGFISHER (*Dacelo gigantea*).  
3 years and 1 year 3 months.
21. CUCKOO (*Cuculus canorus*).  
11 months.  
This is a very difficult species to keep and somewhat uninteresting. It would probably do best in a large aviary with other birds larger than itself.
22. BAHAMA AMAZON (*Chrysotis bahamensis*).  
9 years 3 months to 3 years.  
Seven examples, of which five are still living. This is a very hardy species, and when once acclimatised stands our winters well. A young one was hatched in my aviaries last year. (See *Avic. Mag.*, series 2, Vol. II., p. 239, and *Ib.*, 3rd series, Vol. I., p. 80).
23. BARN OWL (*Strix flammea*).  
5 years 1 month to 1 year 1 month.  
Seven examples: average 2 years 6 months, the oldest is still living. This species has bred for several consecutive years and reared its young on one occasion.  
The eggs are usually five or six in number, and are laid in pairs at intervals of about a week.
24. AUSTRALIAN BARN OWL (*Strix delicatula*).  
1 year 9 months.
25. LONG-EARED OWL (*Asio otus*).  
3 years 6 months, and 1 year 4 months. Two examples.
26. TAWNY OWL (*Syrnium aluco*).  
5 years 4 months to 1 year 11 months.  
Six individuals, four living: average 2 years 7 months. The two that died were killed or starved by another of the same species.





MARSH HARRIER.



IMMATURE EGYPTIAN VULTURE.



27. LITTLE OWL (*Athene noctua*).

6 years 6 months, 1 year 2 months.

Five examples: average 2 years 8 months. I only once succeeded in getting this species to nest, and then I lost the hen through egg-binding. The difficulty lay in sexing the birds; my longest-lived bird, a cock, persistently killed others put with him in spring, and these on dissection proved to be cocks. I finally succeeded by introducing three new birds in autumn, and was then able in the very early spring to pick out the pair.

28. SCOPS OWL (*Scops giu*).

3 years 6 months to 1 year 1 month.

Three examples: average 2 years 7 months. This is not a hardy species. They nested and hatched for two years but failed to rear their young, although Mr. Meade-Waldo had no trouble with them in this respect. (See *Avic. Mag.*, series 1, Vol. V. p. 159). Period of incubation 25 days. The hen, as is the case in all the owls I know, alone incubates.

29. EAGLE-OWL (*Bubo ignavus*).

A pair still living and nesting are 14 years old; the only young one I have reared is seven years old and still alive and well. Their period of incubation is 35 days. The old pair nested for the first time in their fourth year, but persistently refuse to feed their young. In 1904 she had three nests and hatched eight young.

30. EGYPTIAN EAGLE-OWL. (*Bubo ascalaphus*).

1 year 2 months; still living.

31. SPOTTED EAGLE-OWL (*Bubo maculosus*).

7 years 10 months, 4 years 6 months and 1 year 3 months.

These birds bred and reared the first year I had them, but owing to the death of the cock I was unable to breed any more. The hen laid every alternate year till her death. (See *Avic. Mag.*, 1st series, Vol. VIII., p. 39).

32. EGYPTIAN VULTURE (*Neophron percnopterus*).

2 years 4 months.

33. MARSH-HARRIER (*Circus aeruginosus*).

♂, 3 years. I have had about three examples of this

species, but with the one exception they have never lived beyond a few months. My experience, and it is confirmed by others, is, that they never become reconciled to confinement and always knock themselves about on the slightest provocation. They should, therefore, *never* be placed in an open cage or aviary.

34. COMMON BUZZARD (*Buteo vulgaris*).

10 years 4 months, still living, and 4 years 5 months.

These two birds, the only examples of this species I have had, were hand-reared from the nest in 1899. They were both females, and the one that died succumbed to persecution from her sister during the breeding season. They both belonged to the dark phase, and the plumage has not altered in the least with age.

35. SPARROW-HAWK. (*Accipiter nisus*).

3 to 4 months; six examples.

I have on several occasions reared Sparrow Hawks from the nest. They have, however, never lived longer than a few months. They are very shy and nervous birds and must be fed on small birds or mice. They *will not live* on butchers' meat. The last ones I had got ill owing to lack of fresh sparrows, and although fresh sparrows helped to pull them round, they never recovered.

36. BLACK KITE (*Milvus migrans*).

10 years, 3 years four months.

I received five examples: four young and one adult in 1900, three of which are still living. They are very hardy and stand captivity well, the two deaths being due to fights during the nesting season. They frequently laid and hatched, but always refused to feed their young. In Egypt last year, I attempted to rear a pair of young from about two days old on butchers' meat. They lived for about a fortnight and then died, their bones being so spongy and soft that they bent under the weight of their bodies.

37. AUSTRALIAN SQUARE-TAILED KITE (*Lophoictinus isurus*).

4 years 6 months.

I was lucky enough to procure a young bird of this

species, which is very rarely imported. Without exception it was the most sluggish bird I have ever known. (See *Avic. Mag.*, 2nd series, Vol. IV., p. 195.)

38. PEREGRINE (*Falco peregrinus*).

♀, 1 year 2 months. This is the only example of this king of Falcons that I have kept. In the Giza Gardens they have a splendid male that has been there seven years.

39. MERLIN (*Falco æsalon*).

1 year 1 month, 7 months, 3 to 4 months.

This delightful little hawk is said never to live through the winter in confinement. I believe no difficulty would be found were it given a large place in which to fly. The one I kept had the use of a large barn from October onwards but was not strong enough to complete its moult the following summer.

Birds of prey, without exception, are delicate in confinement, and to do well and keep in good plumage want care and attention. They should not have butchers' meat more often than necessary, should be fasted on at least one day a week and be given rats or birds also at least once a week, if fresh and warm so much the better. They should *never*, in my opinion, have an open-air flight, but the aviary should only be open on one side and should face the driest and warmest aspect. Water to drink or in which to bathe is by no means essential.

They should never be given more to eat than they can finish at a meal, but on the other hand they must not get too hungry before their next meal. Their appetite varies with the seasons, and they require more generous feeding in autumn than at other times of year. If these points be watched, however, the careful aviculturist will find no great difficulty in keeping them in health and beautiful feather. The 'Kestrels' House' at the Zoological Gardens, although in bad repair, is to my mind a model house for Raptores, and the condition of the birds in it at the present time will bear out my contention. It is, however, doomed to destruction and will, I fear, probably be replaced by a more pretentious, but certainly not more suitable, building.



40. KESTREL (*Falco tinnunculus*).

8 years 4 months, 2 years 11 months.

Five examples: average 5 years 10 months. This is by far the easiest hawk to keep. Apart from those still living and one that died just under three years, I have never kept one less than 6 years 8 months, and this one had already been a year in captivity.

41. OSPREY (*Pandion haliaetus*).

11 months.

(See *Avic. Mag.*, 2nd series, Vol. I., p. 80 and p. 269).

42. CORMORANT (*Phalacrocorax carbo*).

4 years 10 months; killed by accident.

(See *Field* of Nov. 27th, 1909, p. 974 for details of plumage and habits of this bird).

43. HERON (*Ardea cinerea*).

11 years, still living, to 1 year 6 months.

Five examples: average 5 years 4 months.

(See *Avic. Mag.*, 1st series, Vol. II., p. 1).

44. PURPLE HERON (*Ardea purpurea*).

10 years 8 months and 2 years 10 months. Three examples.

I have also had two or three young ones which have not survived their first winter. In confinement this is a hardy bird once it is acclimatised, but they require careful watching during their first winter. They will do well in an open aviary, but must have a good shelter into which they can retire in bad weather. My herons are always fed entirely on fish; they will not do well on butcher's meat, though if it be given they will take it in preference to their more natural food. As they are comparatively sedentary birds they are apt to get corns on their feet from continual perching on the same spot. This may be obviated by tying small twigs of varying sizes on the perches so that the birds never get exactly the same grip. Perches must of course always be provided, and herons should never be pinioned.

45. NIGHT-HERON (*Nycticorax griseus*).

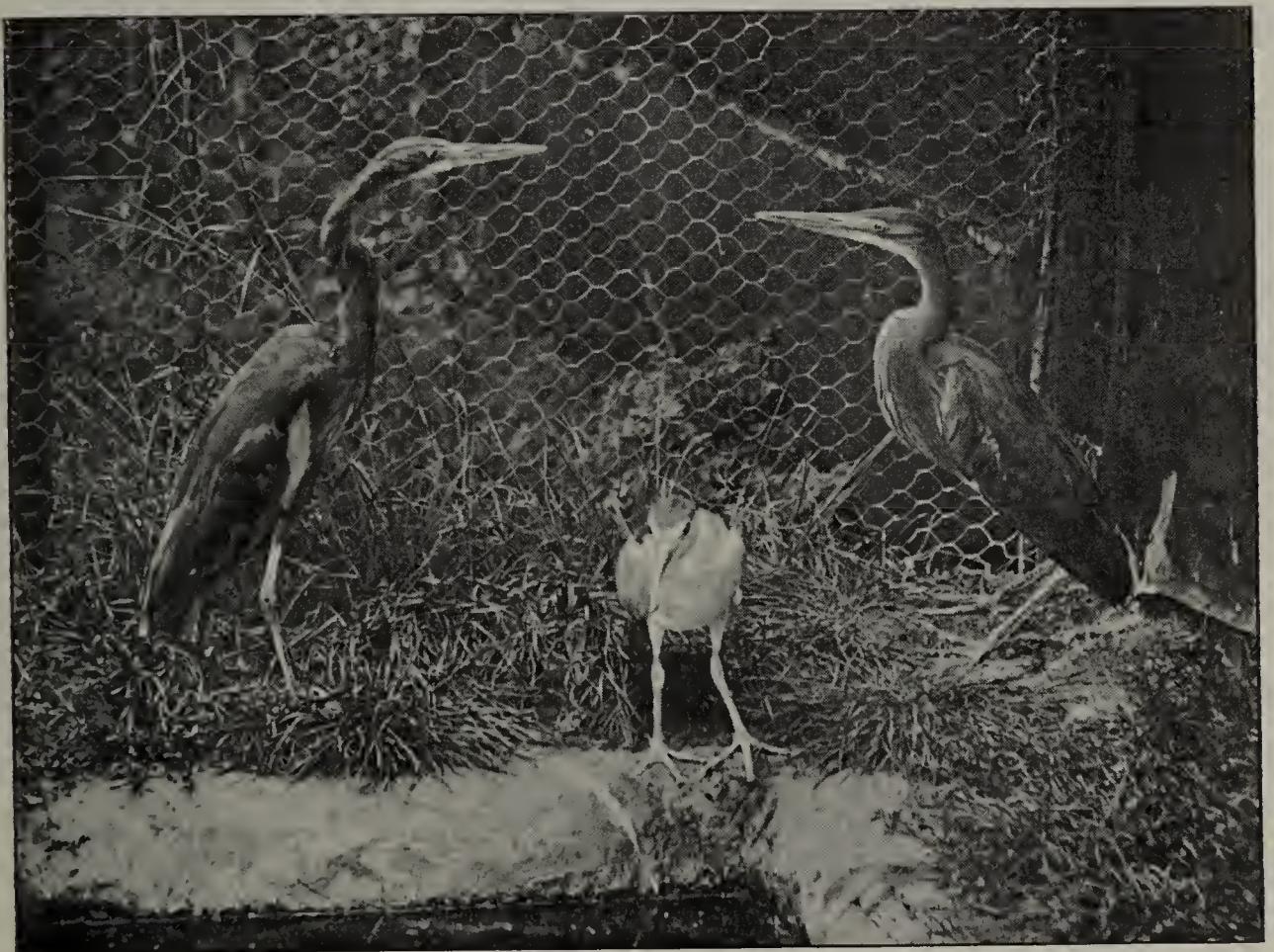
9 years 7 months and 4 years 10 months. Two examples.

This species is one of the hardiest of the Herons and,





BITTERN.



IMMATURE PURPLE HERONS & ADULT NIGHT HERON.





contrary to my usual rule, I kept them latterly (owing to pressure of space) without any shelter except for a few trees and bushes. I lost one in its second winter under these conditions, but its brother survived for some years. Both died of tuberculosis.

46. BITTERN (*Botaurus stellaris*).

10 years, still living, 7 years 10 months, 2 years 11 months.

This is a delightful and hardy species. I have never lost one from natural causes. They 'boom' during April and May, but not, according to my experience, until they are four years old.

*(To be continued.)*

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## NESTING OF THE ARGENTINE BLACKBIRD.

*Turdus fuscater.*

By PERCY W. THORNILEY.

About the middle of January I received from a dealer, whom I had not previously dealt with, a pair of what he described as South American Blue Thrushes something like blackbirds. When they arrived I could not find any blue thrush about them but a good deal of blackbird: however I arranged to keep them as I had not heard of them being imported before. They were rather dirty, but otherwise in fair plumage for newly imported birds, and it was not until they had done a good deal of bathing that I was able to make out any difference in the two birds. They both looked a dull black, each had a yellow beak and yellow legs, but the colour of the latter not so pronounced as the bills. It was not before I turned them out that I could distinguish any difference in the plumage. The cock is black, but not such a good colour as our common blackbird. The hen can be described as a brown black, but at a distance, it is not easy to tell the sex except that the cock has a yellow iris round the eyes. In Sclater's "Argentine Ornithology" they are described as "Uniform brownish black, bill and feet yellow: total length 11.5 inches, wing 5.3 and tail 4.5. Female similar." In fact it was from this description that I was able to class the birds. It is there spoken of as being "Very common at Mendoza, Cordova,

Tucuman and met with among the shady trees of the promenades: has a better song than our blackbird, which is heard at a distance, especially in the evening." The whistle is distinctly loud—they have both a call of two short and one long note, but none of the wretched war-cry of our common bird.

On February 4th, I noticed the hen going with open bill at the cock and driving him round the cage; in fact, she gave him no peace at all, so the next day, Sunday, being fine and mild, I decided to turn them out in a fair-sized aviary, 40ft. by 20ft. and 14ft high, which is in a sheltered position. They seemed to enjoy the change and soon settled down.

On the 18th March I saw the hen carrying dried grass into a nest-box made out of an old cartridge box with two boards inverted, V-shaped, forming the roof, and hung on the side of the aviary in the open. On the 19th the hen was on the nest, so on the 20th I took a ladder into the aviary and found two eggs in the nest. The next day the third egg was laid which appears to be the usual clutch. I did not remove the eggs but saw they were about the usual size of Blackbirds' eggs, but more like a Missel Thrush's in markings. The hen sat steadily, only coming off to feed. On the morning of April 2nd, I noticed the hen breaking up her mealworms, so I concluded she had not sat in vain. The next day I looked in the nest and found two young hatched and the last egg chipping, so by that she must have started sitting from the laying of the first egg. So far all had gone on swimmingly, because I had had nothing to do with it—the birds had done it all.

Now the work was to be co-operative, and it remained to be seen if I could rise to the occasion. About this time the weather was much colder than when I turned the birds out and upon going to the aviary, on the morning of the 4th, my hopes of a medal dropped to zero, for the head of one young one was hanging out of the nest. However, upon looking into the nest, I found the other two alive, one much bigger than the other in fact; I should say the first and last hatched. From now until the birds left the nest I was kept well on the trot. I looked again on the 5th and found all well, both old birds feeding steadily. On the 17th they had very little down left on them and upon going

into the aviary on the 19th, I found both young ones on the ground, one still a little larger than the other. The young birds have black bills with lighter tips, the legs flesh-colour. The body is dark brown, the throat and breast lighter, the feathers have ashy tips which gives them a speckled appearance.

By the 23rd the hen had re-built the nest and laid two eggs; the next day she laid the third. This nest I robbed for two reasons. First, I thought the old birds would neglect the young ones, and secondly I wanted the eggs to examine. They have a pale green ground-colour, splashed and dotted all over with rich dark brown, but more particularly at the large end. They vary in size, the largest egg is  $1\frac{2}{3}$  by  $\frac{1}{16}$ .

On the 27th, I saw one of the young ones feeding at the soft food dish for the first time, but the old birds continued to feed them until about the 7th May.

At the time of writing the two young ones look as large as the old birds, and another clutch of eggs have hatched and the young are feathering nicely.

If the three blown eggs will be of any interest to the museum, I shall be glad to send them.

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## NOTES FROM NORTH-WEST AFRICA.

By T. H. NEWMAN, F.Z.S., M.B.O.U.

*(Concluded from page 238).*

We left Biskra on the morning of November 30th for the short journey back to El Kantara; on the way I noticed a large flock of what appeared to be Pigeons—very likely Rock-doves—and a couple of Ravens. El Kantara lies high, and is situated right in the Aurès Mountains; it consists of a remarkable gorge of rugged rocks through which the El Kantara River flows. It has been styled the Key of the Desert, and forms the first of the oases, being the most northerly point for the culture of dates; many thousand Palm trees grow beyond the Gorge, among which are three Arab villages. The first birds I noticed were some Ultramarine Tits in some fruit trees in the garden of the little Hotel; many Sparrows were flying about the road. In the afternoon I



walked through the Gorge towards the Palms, and got a good view of a fine cock Blue Rock-thrush sitting on the edge of a Prickly-Pear leaf; presently he flew to the top of a mud hut, flitting his tail upwards much as a Blackbird might do. A Black Chat and a cock Moussier's Redstart were next seen hopping about in company; also Crag Martins and the ubiquitous White Wagtail were in evidence, while from high up the mountain side the hoarse croak of the Raven could be heard. In the dining-room of the Hotel were two stuffed Rollers (*Coracias garrulus*), a species which is very plentifully distributed during the summer months, but it has never been my good fortune to meet with it alive, except in captivity; also a large dark Eagle Owl, doubtless referable to the North African form *Bubo ascalaphus*. In another room were four Houbara Bustards (*Otis undulata*), one being a very fine bird; a Night Heron (*Nycticorax griseus*), and a Chough (*Pyrhocorax graculus*). Canon Tristram found this last species breeding here in 1857, so it is probably still to be met with here, though I did not see any living birds.

December 1st was a nice bright morning: it was quite cold and there had been a sharp frost in the night. During the morning I only noticed some Crag Martins and Sparrows, and I was glad again to see the House Bunting in one of the Arab villages. Later in the day I saw two Black Chats sitting on a low wall near the river; they have a noticeable way of jerking the tail upwards, and the white patch at its base is very conspicuous during flight. A Cirl Bunting, some Ultramarine Tits and hen Algerian Chaffinches were also observed. The Blue Rock-Thrush must be very abundant here; I saw three dart out together near one of the villages; the second bird was making dives at the leader, while the third followed a little way behind; they quickly turned and disappeared behind a wall.

The next morning was rather warmer. I saw nothing fresh, but a couple of Ravens at pretty close quarters—one was soaring round and round uttering hoarse caws—a hen Moussier's Redstart perched on a cactus, and a Blue Rock-Thrush. Left El Kantara before 10; a little way beyond Batna, a man got into the train who had evidently been shooting by some neighbouring water; he had a number of Teal (*Nettion crecca*), and other

Ducks; also a fine Black-winged Stilt (*Himantopus himantopus*). Small birds were numerous; I noticed two Kestrels and four Lapwings, and I caught sight of a grey bird which I thought might be a Harrier; the Pallid Harrier (*Circus macrurus*) is said to be the commonest species to be met with; it is, however, difficult to make out birds clearly from a moving train. As we had nearly an hour to wait at El Guerrah, I walked up a steep rocky hill close by but only saw a Grey Wagtail (*Motacilla melanope*) and some White ones near a small stream, also some Larks.

Arrived at Setif about 7.30 in the evening; there is nothing of interest in Setif, which is only a modern commercial town. We left it by motor next morning; at first travelling through fertile land with hills on either side, gradually the hills became more and more steep and rugged and closer to the road; as we approached Kerrata, where we stopped for lunch, I saw some Ravens, and three beautiful Kites (*Milvus milvus*) were seen fairly near, gliding up the valley. I know of no bird more fascinating to watch on the wing than a Kite. A Kestrel and a larger Bird of Prey were also seen, and a number of small birds; a flock of Rock-doves were flying along the river bed at Kerrata. On resuming our journey, the scenery at once became most grand, the road, which descends all the way from Setif, now skirted round magnificent rocky heights and wound in and out in a wonderful way along the side of a pebbly stream. This is the famous Chabet Pass, which would certainly be hard to beat for grandeur anywhere. After passing through the Gorge, the country again becomes more open, the hills become clothed with trees and shrubs; on the lower slopes grow fine cork trees. Soon glimpses of the sea are obtained; Olive trees appear; many Palms, Plantains and other fruit trees are grown; and you pass through extensive vineyards; then the road skirts the Gulf of Bougie. It is extremely pretty as you look down first on the blue water, then across to Bougie nestling at the foot of the green slopes of a hill jutting out into the sea and forming one arm of the Bay. We reached Bougie just before dark; it was much milder here.

The 4th was a bright summer-like day. In the morning I



walked out as far as Cape Carbon ; the steep path runs above the sea, while on the other side is a dense tangle of scrub, prickly oak and other shrubs, among which a fine heath three or four feet high was growing, ranging in colour from pure white to deep pink ; behind rose high rocks. This scrub was full of birds, which were, however, very wild and dived into cover as one approached. I heard Blackbirds, and by watching saw some Tits, probably Ultramarine, but they may have been Mediterranean Great Tits ; Blackcaps were very numerous. I saw two greenish-brown Warblers, apparently belonging to the genus *Hypolais*, but I could not make out the species ; a Black Redstart, and some Chaffinches, Algerian I expect. Ravens were heard high up among the rocks. On the way back I detected a Tree-creeper on the trunk of an Olive tree ; the North-West African bird is rather darker in colouration than ours ; it has been given the name of *Certhia familiaris brachydactyla* on account of its somewhat shorter hind-claw. In contrast to the other birds were some Serin Finches, which several times flew into the tree under which I was standing ; this charming little bird reminds me rather of a Siskin in the way it balances itself among the small twigs. Interesting papers about this bird appeared in Vols. II. and IV. of our Magazine, the latter containing an account of its nesting in captivity. In the town I saw a small green Ring-necked Parrakeet in a cage, and on the balcony of a private house was a large cage with about twenty small foreign birds in it.

In the afternoon of the next day I climbed up Mount Gouraia, which lies to the back of the town ; from the top were obtained magnificent views of the Gulf in front, while range upon range of mountain-chains stretched inland as far as the eye could reach ; the slopes are covered with a thick mass of scrub, and a plantation of Aleppo Pines grows about two-thirds of the way up. Many birds were about but were very shy ; I saw and heard Blackbirds and Ravens, and on the way down I saw a fine Falcon flying along the face of some precipitous cliff—it looked like a Peregrine—and just as dusk was coming on three Barbary Partridges flew across the road just in front. Some Lapwings were also seen near the town.



On the following morning I saw two Barbary Partridges in cages, and noticed a couple of White Wagtails. Very few Sparrows were seen at Bougie, which we left before eleven o'clock in the morning, travelling all day through fertile plains with fine hills more or less near; at one place the ground was covered with a thick growth of low scrub Palms. We arrive at Algiers shortly after seven o'clock.

Next day the Museum at Mustavo Superieur was visited; it contains a dilapidated collection of dusty stuffed birds and mammals, apparently nothing of much interest and only few in number. In the gardens of the Governor's summer palace was a small round enclosure which contained some Barbary Doves, also one Turtle Dove and a hybrid Turtle  $\times$  Barbary. On the day following the beautiful Botanical Gardens, known as the Jardin d'Essai, were visited; there is a poor little Zoo there with only a very few birds, but I noticed a nice Desert Buzzard. The Ostrich enclosure was covered with a mass of beautiful purple and scarlet Bougainvilleas.

On the morning of the 9th I again visited the Jardin d'Essai, but only saw Sparrows, Blackbirds, Pipits and some Warblers which seemed to belong to the genus *Phylloscopus*; and I just caught sight of a very small bird, possibly a Wren. During the night there was a sharp thunder-storm accompanied by hail.

December 10th was devoted to an excursion to the Gorges de la Cliffa; you go by train to Blidah, where a fine stud of Arab and Barb horses may be seen, and drive about ten miles, passing through extensive Orange groves and vineyards, to the entrance of the Gorges; just before arriving there we stopped to see a small cave. On the other side of the road were some steep rocks with ivy and other greenery growing over them, among which were fully a dozen Barbary Apes (*Macacus inuus*); they were not at all shy, and were only a few feet above our heads. They disturbed stones and sticks which almost fell on our heads below; several were of considerable size, and some had small young clinging to them; they kept uttering a sort of grunting note. In the garden of the Inn at the head of the Gorge were a pair of Barbary Partridges, the cock being in very good plumage; below

them was a small Ape. We walked some distance down the Gorge; its sides are very steep and high, and at one place where water was trickling down, the whole face of the cliff was covered with a beautiful veil of Maiden-hair ferns, while a pretty little yellow Narcissus was growing among the rocks. At one place more Apes were seen; there were only some few small birds about, among these some Tits. On the opposite side of the valley, in a shallow depression in the rocks, a large flock of Rock-doves were sunning themselves and sheltering from the very cold and keen wind which was blowing. I watched them for some time; every now and then a bird would fly from one point to another so that their backs became plainly exposed to view; they were a good way up the cliff, so I may after all be mistaken, but I am of decided opinion that none of these birds had white rumps; there could be no question of the birds having been contaminated by tame birds in this remote spot, so that this appeared to be a genuine flock of *Columba livia schimperi*, which however only differs from the typical Rock-dove by being a little lighter in shade and by having the rump light grey like the back. Numerous instances are on record of blue-rumped Rock-doves having been obtained in Tunisia and Algeria; Mr. J. H. Gurney, jun., observed and procured specimens in Algeria in 1870, and Mr. Whitaker has examples from Tunisia and Morocco; but generally these have been obtained from among flocks of typically-coloured birds and have been supposed to have been the result of crosses with domestic birds. There must have been at least a hundred birds in the flock I saw. Suddenly the form of a great bird appeared over the top of the cliffs; it was a magnificent Bearded Vulture (*Gypaëtus barbatus*) easily recognisable from its large size and long wedge-shaped tail; it sailed rapidly across the valley on motionless wings, going at a great rate without seeming to make the slightest effort; it passed and repassed overhead several times, a wonderful sight, worth going many miles to see.

While walking up one of the steep narrow streets of Algiers, which led up to the Chasbah, next day, I came across a pair of Barbary Partridges in a cage hanging up over a vegetable shop; the proprietor showed me the birds, which were very



tame, he let the hen bird out of the cage; I agreed to buy them and brought them back with me. The Barbary Partridge is very closely allied to the familiar Red-legged bird, differing from it by having the crown of the head chestnut-red, the cheeks and throat bluish-grey instead of white, and the collar round the neck chestnut-red not black; they are very handsome birds, and these were so tame that I got quite fond of them. They were said to have been caught young, and I expect they had lived in the small cage I saw them in ever since.

We left Algiers at mid-day on the 12th on our return voyage to Marseilles. A number of Gulls were flying about the neighbourhood of the harbour; I recognised many Lesser Black-backed, mostly adults, but some large dark grey young birds probably belonged to this species; also several Yellow-legged Herring Gulls, and Black-headed Gulls were well represented; a large flock which seemed to be entirely composed of this last species followed the boat. Some Whales were seen sporting close to the ship. We had a very calm passage; next morning two Yellow-legged Herring Gulls were in sight. We arrived outside Marseilles early in the afternoon; here a great many Black-headed and a few Yellow-legged Herring Gulls were flying about.

The journey across France was accomplished in a leisurely fashion by stopping at Arles, Avignon and Paris. We landed safely in England on December 15th, having spent five weeks full of interest and enjoyment, to which the birds contributed in no small degree.

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## NOTES ON THE ROCK BUSHFOWL.

*Ptilopachys fuscus.*

By Dr. E. HOPKINSON.

I was much interested to see in the April number of the Magazine that Mr. H. D. Astley was the fortunate possessor of a pair of "Rock Bushfowl" (*Ptilopachys fuscus*).

These birds are not at all common in the Gambia, and it may interest him and perhaps other members to hear a little about the wild life of these charming little Game-birds, whose



resemblance to a dark-coloured Bantam is really quite extraordinary. Their general colour is chocolate brown, more rufous on the under surface of the wings; the bill and feet are pink, and they have a small comb of the same colour. The cock is a distinctly darker bird than the hen.

They frequent the ironstone ridges which intersect a large part of the more inland parts of the country, and which are covered with bamboo growth varied here and there with patches of thin scrub. Here they are found in pairs or small parties of about half a dozen, which lie very closely, and prefer to trust to their powers of hiding rather than their wings, as they will wait till almost trodden on before moving, and then they either scuttle away, exactly like frightened chickens, dodging in and out the rocks, or rise with a scuffle and scattering of dust to fly rapidly away for a few yards and then drop again into shelter. They never appear to perch on trees or to move far away from their customary haunts, and they must also be able to get along with very little water, at any rate during the dry season, for then there is never any on the hills they frequent, and one never sees them like other Game-birds going to or from water. Their note is a low-pitched whistle. They are not at all easy birds to shoot, as they are only flushed with difficulty, and even then are usually out of sight again in a second. If one is wounded it will generally be lost, as it will probably manage to struggle away into some hole in the rocks. In such holes, which are often very deep, they nest, commencing to lay about the end of May. The young after leaving the nest remain with their parents for some time. Their food must be found chiefly, if not entirely, on the ironstone hills, as one never sees them on the cultivated ground. It probably consists mainly of the seeds of bamboos and various grasses with a considerable addition of insect-life as well. I had one in captivity for some time; it ate any of the common native corns and was also very fond of boiled rice, while white ants, when obtainable, were always greedily devoured. Although so common here, I have never heard of one being caught by the natives, who catch a good many of our Common Bush-fowls (*Francolins*) in primitive traps or horse-hair nooses.

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## NOTES ON BIRDS OF PARADISE.

By WALTER GOODFELLOW.

## INTRODUCTION.

The following notes on some of the Birds of Paradise are chiefly from observations made during various visits to New Guinea and some of the adjacent islands for the purpose of procuring living specimens of these remarkable and beautiful birds, and date back from my first visit in 1903 up to the present year. Unfortunately I am writing these notes entirely from memory, not having brought my note-books out with me to New Guinea; hence they will not be so comprehensive as they might otherwise have been. Likewise I much regret having no works of reference with me, for I constantly read remarks about these birds which are altogether wrong, and some purely imaginative and needing correcting. Except perhaps in the British part of New Guinea few white men have had an opportunity of seeing the rarer species in their native haunts, as these all inhabit the mountains which, apart from their steepness, are the most inaccessible in the whole world, and only to be approached through swamps and tangled jungle, the abode of fever and hostile natives, not to speak of insect plagues and other discomforts. Unlike the feathered inhabitants of these parts, the human animal is of the lowest, and travelling alone, as I have hitherto done, I have found it requires all one's resolution brought to bear to keep from succumbing to the gloom and loneliness of it all.

After landing my consignments in England I have had but little opportunity to study them after they have settled down to aviary-life, when so much might be found out about them, especially about their various modes of display, but often the little I have observed has quite upset theories I had formed during the time some of the species were in my charge. Doubtless, in time, Mr. Brook, of Hoddam Castle, will be able to give us all sorts of interesting information about Paradise Birds under these conditions, for he has the finest living collection ever brought together, comprising no less than nineteen species, some of them the most beautiful of the whole family. The cult of the Paradise-

Bird may be said to have commenced in 1904, when I brought over a small consignment for Mrs. Johnstone, consisting of one Greater Bird, two Lesser Birds, two Kings, and a pair of Black Manucodes. I always feel that aviculturists are much indebted to Mr. and Mrs. Johnstone, whose liberality in providing the means to fit out expeditions has enabled them to see these birds established as inmates of the aviaries at home, also on the show benches, while numbers have been on exhibition at the Zoo. Later, Sir William Ingram and Mr. Brook have both sent out expeditions for the same purpose, and been the means of introducing still further species to this country. These importations have conclusively proved one thing, that Paradise Birds are by no means so delicate as they were at one time supposed to be; in fact, I think it may safely be said that generally they are hardy birds. So far none have bred in captivity, but I see no reason why they should not do so, and I feel sure, now that the treatment of them is better understood, that before long we shall hear of success in this direction. It is only about three years ago that the first females of any species were imported.

These notes will be confined to those I have imported alive, which, with the Gardener Bower Birds, consists of twenty species, namely: The Greater (*Paradisea apoda*), the Lesser (*P. minor*), the Red (*P. rubra*), Count Raggi's (*P. raggaina*), the Twelve-wired (*Seleucides nigricans*), the Port Moresby Rifle-Bird (*Ptilorhis intercedens*), the King (*Cicinnurus regius*), Hunstein's Magnificent (*Diphyllodes hunsteini*), the Lesser Superb (*Lophorhina minor*), Lawes' Six-plumed (*Parotia lawsei*), D'Alberti's Southern (*Drepanornis cervinicauda*), Meyer's Sickie-Bill (*Epimachus meyeri*), the Princess Stephanie's (*Astrarchia stephaniæ*), Prince Rudolph's (*Paradisornis rudolphi*), the Black Manucode (*Manucodia atra*), the Purple-violet Manucode (*M. purpureo-violacea*), the Green Manucode (*M. viridis*), Lady McGregor's (*Loria mariæ*), and two specimens of Gardener Bower Birds (*Amblyornis subalaris* and *A. inornata*).

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#### THE GREATER BIRD OF PARADISE (*Paradisea apoda*).

The Aru Islands off the S.W. coast of New Guinea are usually considered the chief home of this species, but it also inhabits the mainland in the interior south of the Charles Louis



and the Snow Mountains, which form the dividing line N. and S. between the Greater and Lesser Birds. We have recently met with it on the upper Mannika River, but it was not until we had gone nearly 40 miles inland that we first heard their cry, and so far they appear not to be at all common. The natives had often brought the plumes to trade at the base camp, and I took them to belong to the Lesser Bird, because being always old and dirty it was impossible to recognise them. When I first heard their call up the river it struck me as sounding too vigorous for *P. minor*, and I remarked it to one of our party at the time; then later on, when specimens were brought in, I saw they were *apodas*, but certainly smaller than those from the Arus. The Dutch have lately been exploring several of the rivers down this coast, and I have heard that in each case no Paradise Birds were met with until they had got some considerable distance inland.

In the Aru Islands it is by no means distributed equally all over the group, but confined to the deepest jungle of the extreme interior where the trees are tallest, and it requires a good gun to reach them at all.

I first went to the Arus in December 1903. This was before the advent of the pearl fishers from Thursday Island, and I was at that time the only European in the country. I made Silbattabatta my headquarters. It was then a flourishing village far along the north bank of the Wanumbai channel. These curious channels intersect the Islands from one side to the other and wind about in every direction. Some are navigable for shallow draught boats, and through others only the smallest canoes can pass. As the islands are very flat, the banks of most of them present an unbroken line of mangoose swamp, but on the Wanumbai channel the jungle comes down to the water's edge, except round the villages where the ground is more or less cleared. The Silbattabattas were at war with the Wanumbais of the south banks of the channel, so my search for birds had to be confined solely to the forests on the north shore. I soon saw it was useless for anyone to come out here thinking they would be able to catch or shoot *apodas* themselves, for the natives look upon the birds absolutely as their own property. This is hardly to be wondered at when the trade in skins has been carried on

for generations; and, though this was one of the earliest species known, there is practically still everything to learn about them. Dr. Wallace, some fifty or more years ago, was the first to throw any real light on their habits.

I had been established at Silbattabatta quite two weeks without seeing or even hearing the sound of an *apoda*, although I was out in the bush every day with native guides; and I was sure they purposely led me away from the district they frequented. At last I came to an understanding with them, and promised if they took me to their grounds I would give them a present for every one I shot. This they agreed to do, and the next morning I set out with six men, who took me, after about three hours walk, to a part of the forest which was different in appearance from any I had yet seen. The trees were taller, and the undergrowth not nearly so dense; and, instead of the usual coral rock, which seems to crop up everywhere in the Aru forests, the ground was covered with beautiful lycopodium moss, which made walking much easier. It was not long before I heard those loud ringing calls which I have since learnt to know so well, but it is impossible to convey to anyone the thrill it sent through me at the time; the whole surroundings were mysterious, the green gloom of the jungle with its strange vegetation, my silent, wild-looking, dark-skinned companions, and then to be at last so near to the birds I had come so far to see. A little further, and there in the tops of the high trees were sixty or seventy restlessly flying from branch to branch, picking a fruit here and there and apparently not at all afraid, although they could plainly see us below. I found at this season the males were all out of plumage, but I noticed several had the yellow heads, but the majority of them appeared to be females or young males. Feeding in the same trees were several Black Manucodes, a couple of which I shot, a fine Cat-bird, and, on my way back, my first King Bird. I learnt from the natives that the dancing-trees, which are used by the birds only when they are in plumage, were still some distance further on. Every tribe claims the trees in their district, and should a man from another tribe trespass on the preserves of the other it means war, unless they are sufficiently friendly through intermarriage for the matter to be settled by the chiefs. In such



a case a fine is usually demanded in the form of bronze trade gongs, obtained through the Chinese traders in Dobo. The dispute with the Wanumbais had originated in this way, and, when I arrived in the district, fighting had been going on intermittently for two seasons. Peace was concluded before I left, as an even number had been killed on both sides. The Silbattabattas kept the heads they had captured suspended from a tree in the middle of the village, just facing my house, and it was somewhat weird to hear them speak of each head by name, giving details of family history and the manner in which he was killed. I may add that these particulars were not always creditable to the captors, and in almost every case showed the grossest treachery.

In 1904 *apoda* skins were fetching forty shillings each in Dobo (the one trading station of the islands) and this price appears to have increased last year to fifty and fifty-five shillings, owing to a great decrease in the numbers. About four years ago Customs were established in Dobo, and a ten per cent. export duty levied on the skins. The collector of Customs kindly gave me the returns for the first year, which amounted roughly to 1,100 skins of *apodas*. These figures would include only those sent away in bulk. There would certainly be more taken out in personal baggage and not declared. A European firm in Makassar, now takes, by contract with the Chinese, the whole of the skins obtained during the season. Their numbers must have considerably diminished during the last few years, as when I passed through Makassar last June, I was told that about 650 only were collected the previous season, and this is not because the birds are less hunted than formerly; on the contrary, they were never so persecuted as they are now.

The *apodas* resort to the same dancing trees year after year, and at the commencement of the season (March) the owners of the trees are able, before the birds' plumes are quite mature, to estimate almost to a skin the number they will obtain when shooting commences. A chief once told me that the preceding year he was only one bird out in his calculations, more or less, I quite forget now. This really means that each year possibly not one full-plumaged bird escapes. Formerly they were all shot



with blunt arrows, but now in some districts the natives are supplied with guns by the traders, and some possess guns of their own. When arrows are used the hunter is concealed under a shelter of boughs placed over a small platform in an adjoining tree. I have never been in the Aru Islands during the actual shooting season, but I have seen many of these platforms remaining *in situ*, and others in course of construction for the approaching time, and in no case were they ever in the dancing trees themselves. The heads of the arrows are of several shapes; some are flat and round on the top, much the same as a lotus when gone to seed, but not so large; others are merely a knob of wood, but the more usual shape has three blunt projecting spurs, cut from the natural fork of a branch. The display is called "Sakaleli," which is the word used generally for the native war-dances. The shooter takes up his position in the tree at daybreak, as the birds assemble at seven a.m. and again in the late afternoon, but the morning dance is the most important. If the Greater Bird is anything like the Lesser he is in such a state of excitement at these times that he would not be disturbed much even by the report of a gun, but I shall have more to say about this when writing of the Lesser Bird. The males are in full plumage by the end of April, and remain so until November, when they commence to moult. In England they appear to reverse the seasons, which is a pity, as comparatively few people see them at the Zoological Gardens when they are at their best during the winter. In captivity they lose the rich golden yellow on the head, which becomes a very pale straw colour, as it does also in skins. Strange to say, a full-plumaged male, which I brought home last year, had a broad band of white round the nape, becoming narrower at the sides as it reached the green of the throat. When last I saw it the white colour was very conspicuous, but probably after it has moulted out, and the yellow head become paler, it will scarcely be noticeable at all. This bird is in the Hoddam Castle aviaries, and is otherwise perfectly normal. *Apodas* quickly become tame in captivity, especially in a cage. The old male, which lived for so long at the Zoo, became quite tame within three weeks after he was caught, and displayed every day as far as his limited cage-room allowed, even

on board a ship in the Indian Ocean during the S.-W. monsoon, when the boat rolled so much that it was impossible to keep water in the tins unless very deep. In their native forests they are not accustomed to take any long flights, neither is there any need for them to do so, when all the trees are in one inextricable tangle. They have the same zigzag way of ascending trees in common with all the Paradise Birds.

The nesting season appears to commence in December, just as the males have gone out of plumage, for I had an egg brought to me early in that month, during my last visit to the Islands, and a few days later the same native took another to Sir William Ingram's collector, who was staying in the same district. The man said he got them both from the same nest, but there was a remarkable difference in the colouring of the two. While Mr. Pratt's was almost white, with comparatively few markings, mine was very pink and richly streaked all over, but more especially at the base. At the same time, together or apart, there could be no question as to their being the eggs of a Paradise Bird. The native who brought them being a particularly stupid person, not speaking much Malay, I could get no satisfactory information from him about the nest, whether it was high up or low down. In all probability it was low down like the *raggiana's*, and that two eggs is the usual number, with a possible three at times. During the first week in January Mr. Pratt had a young *apoda* brought to him alive, which a native had caught in the jungle. It must have fallen from the nest, as it was able to fly but little. The wings seemed to be developed out of proportion to the rest of the body, with the exception of the legs and feet, which, even at this age, were almost the normal size of those of an adult bird. Judging from the young *raggianas* I reared from the nest two years ago, this is the usual development, and in my notes on that species I shall have more to say about it. The young *apoda*, with the help of its strong feet and claws, climbed about the palm-leaf walls of the native house and even up on to the rafters. It was some weeks before it used its wings for flight, although had it remained in the jungle it would have flown long ago, but in captivity, owing to adverse circumstances, its development was retarded. The thighs remained perfectly bare of feathers



for quite two months after it was brought in, as also did the throat and forehead. I noticed the same thing with the *raggianas*, that the parts which are green in the adult male were the last to acquire any feathers. The eyes were brownish violet at first, but gradually became browner after the first month, which colour they apparently retain for the first year. Judging from subsequent experience, I should say that this bird was quite three weeks old when it was caught, and had it remained in the bush it would have fed itself in a few more days, but in captivity it made no attempt to do so until fully a month later. Whether it eventually lived to get to England I never heard. I think there can be no doubt that almost, if not all, the family are polygamous, and certainly those of this genus are.

The Aru natives have various ways of catching Paradise Birds, and probably now, along the Wanumbai channel at any rate, they are more expert at it than ever they were, as several collectors have been out there within the last few years. Formerly the few *apodas* kept in captivity had been stunned by the hunters' blunt arrows, and were often more or less injured, a broken wing being the usual injury. Now they catch them by means of snares placed in the feeding-trees, or better still, in the dancing-places. Bird-lime, prepared from the sap of the gutta percha tree, is also much used, but makes the birds in a fearfully sticky condition. Unlike some of the other members of the family, there is no difficulty about getting newly-caught *apodas* to feed. Being greedy birds they take readily to almost any kind of fruit, and even to the mixture used at home for insectivorous birds. Unless they are freely supplied at first with live insects or some animal food I have found them liable to fall off in condition and die. I have found the yolk of hard-boiled egg the best preventative for this, and when once they have taken to it I had no further fear for them. It is a difficult matter to get a thin bird back to condition. For one *apoda* I allowed the yolk of one egg per day. I have found it quite impossible to keep two males of this species together, at any rate in a cage, and I always thought it would be impossible in an aviary also, but recently in Amboina I saw three adult males together in a not very large aviary, but they were mixed up with parrots, pigeons, and other



birds, which probably was the reason they did not fight. When once they start to fight they usually both get killed, as with their powerful claws they grip each other's throats and peck the eyes out, and even when taken in the hands it is all but impossible to separate them. It is also risky to place even a true pair together in a cage, for, undoubtedly at certain seasons of the year the sexes separate, and as likely as not the female will attack the male, and perhaps injure him fatally, or else worry him so that he does not get sufficient to eat, and dies.

Although in their native islands they are accustomed to the same tropical temperature nearly all the year round, they seem to be able to stand a good deal of cold in England, and even on the voyage over I have found them far less susceptible to cold and variations in the temperature than some of the mountain species naturally used to a certain amount of cold.

The last time I was collecting in the Arus I took down with me a couple of male Red Birds of Paradise from Waigiou. At Dodo I hired a large prau, on which I lived for ten days, exploring some of the intricate channels I have already spoken of, on the look out for a good collecting ground. The *rubras*' cages were placed on deck, and often in the early mornings the *apodas* on shore replied to their calls, and even once or twice showed themselves in the trees at the water's edge.

As I have remarked before, the males commence to assemble irregularly in the dancing-trees even before the moulting season is completely over. Occasionally it happens that a recognised dancing-tree is tabooed by the birds for a whole season, or perhaps longer; indeed I heard of one tree which was deserted for three whole seasons, although the old chief of the district had never before remembered a season when it had not been used. Of course this was put down to the fault of the shooters' who had failed to duly propitiate the spirits, or had not given them the first offerings, which usually consist of the legs of the first bird shot that year. These are fastened to the trunk of the tree, together with a small bunch of plumes; in fact, a bird is seldom shot without a few of the plumes being pulled out and struck into the tree somewhere. A traveller, unacquainted with the custom and coming upon a dancing-tree in the jungle, would

be puzzled to understand the meaning of the miscellaneous offerings piled around. These consists of bronze trade gongs, china plates and bowls, empty cartridge cases, mysterious packets tied up in leaves, half cocoanut-shells containing offerings of tobacco, betel nut, &c., also with copper coins, and sometimes even silver. A recognised ritual of incantation is made when the offerings are placed there and great privacy preserved, as it would not do for another person to see it.

Without my notes I have quite forgotten the native Aru name for the *apoda*, but the usual Malay trade name of "burong mate" dead birds, is understood everywhere. The name originated through the early Malay traders knowing them only from the dead skins. In travelling through the Archipelago on my way back to Singapore, it often sounded strange, when stopping at some island, to hear one Malay call to another "to come and see the live dead birds."

On our first journey of exploration recently up the Minika River, I was much impressed one day by a comparison between man, as he is in those parts, and the so-called lower animals, as represented by this beautiful highly-developed species of Paradise Bird. After travelling for five days up the river, we had that evening come in touch with the first of the upper river tribes. The following morning, as we approached a mud bank, we found some wild-looking, naked men, waiting for us, who, on the approach of our canoes, threw themselves on the ground and rolled and wallowed in black slimy mud and plastered it over their heads and faces so that every part of their bodies was covered with it. More degraded objects it would be impossible to conceive, yet while all this repulsive exhibition was going on some Greater Birds of Paradise were feeding and calling in the trees just over their heads. The contrast between the two could not have failed to strike most people.

We have found two names on the Minika for the *apoda*—"tamuku" and "yau."

*(To be continued).*

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# STRAY NOTES ON INDIAN BIRDS.

By FRANK FINN, B.A., F.Z.S.

(Continued from page 191.)

GREENSHANK. *Totanus glottis*.

Blanford, quoting Oates, gives the bill of the Greenshank as dark olive-brown, darker at the tip; I have found it French-grey, with the tip black.

RUFF and REEVE. *Pavoncella pugnax*.

Blanford gives the legs and feet of these birds as fleshy yellow to yellowish-brown in adults; I have usually found them bright orange, and the bill is often orange at the base. Many specimens in the Calcutta Bazaar had portions of the toes missing, the stumps being quite healed over, and deformed claws were also common. It would be interesting to know what causes defects so extremely rare, otherwise, among wild birds, and especially why they should occur in this very hardy species.

RED-NECKED PHALAROPE. *Phalaropus hyperboreus*.

Between Aden and Bombay, in 1907, I saw many flocks of Phalaropes, which were very wild, and rose at a distance from the ship.

PAINTED SNIPE. *Rostratula capensis*.

A young bird of this species which I obtained before it was fledged, and reared, feeding it upon maggots and canary-seed given in water, "swore" and showed off its wings like an adult. I have seen one of these birds drive off the Eastern Golden Plover (*Charadrius fulvus*), a bird pugnacious enough to drive a Ruff, by this wing-display.

GULL-BILLED TERN. *Sterna anglica*.

This bird would be better called the Gull-legged Tern, for its most noticeable difference from other Terns is in the longer legs and consequently easy walk, unlike the waddle of Terns generally. One I got for the Calcutta Zoo devoured maggots greedily. Terns were constantly sold in the Calcutta market in my time as Plovers, when the fraud could be worked, and a fine collection could easily be obtained by any aviculturist finding himself there in winter.



SOOTY TERN. *Sterna fuliginosa*.

As Terns are supposed to swim but little, I may mention that I have seen three of this species swimming together in the Red Sea.

INDIAN SKIMMER. *Rhynchops albicollis*.

I have had specimens of this curious bird and found they would take shrimps and fish from the hand, though owing to the "under-shot" formation of the bill they could not pick them up from the ground.

WHITE or ROSEATE PELICAN. *Pelecanus onocrotalus*.

The Calcutta Zoo obtained a full-plumaged pair in my time from Europe, and these, to my great astonishment, changed back into *immature* plumage and then back again to full colour.

LITTLE CORMORANT. *Phalacrocorax javanicus*.

This bird is supposed to have a young plumage much like that of the young of our Common Cormorant (*P. carbo*), and I certainly saw some of these brown white-breasted birds among the fledged young of the wild colony of the species in the Calcutta Zoo; but the colouration of most of the young I saw in Calcutta was black like that of the parents, though some I reared and sent to the Calcutta Zoo, where they were kept confined, assumed the supposed immature plumage later on. The nesting-down is black, but there is none on the forehead, and the bare skin there is white like human skin, giving a very comical effect. This species walks, either in a semi-erect or horizontal position, well enough, and is active on trees; I have seen a young bird turn its head back to sleep, with the wings still spread out, after it had been in this well-known Cormorant pose. My captive birds produced no castings, like the Shag (*P. graculus*), and unlike the Common Cormorant.

INDIAN DARTER or SNAKE BIRD. (*Plotus melanogaster*).

In this bird the down of the young is white. I have seen a captive one asleep with the wings still expanded, so, taking this evidence with that of the last species, I think Newton was wrong in doubting the fishermen's statement that our Cormorant may sleep in this position.

(To be continued.)

## CORRESPONDENCE, NOTES, ETC.

## NESTING OF PAINTED FINCHES.

SIR,—At the annual spring sale of the Antwerp Zoological Garden, I bought a pair of *Emblema picta*, which I kept for some time in a large flight cage of my bird house.

As the weather got warmer, now some three weeks ago, I put the little birds in a warm sheltered out-door aviary.

The birds seemed to like the change very much; their plumage and general condition improved, and the male began to sing a good deal. This little song is very simple and not much of a song in any way, but he seems to take great pains about it, and looks very proud when he is at it.

The birds after a while began to collect nesting material in a square box, and built a large, dome-shaped nest, using the material of two Common Wrens' nests and one Robins'.

As the birds are since a few days only visible in turns, I presume that they have eggs, and are incubating.

*Emblema picta* are very quiet little birds, which in many of their little ways remind me of the Red-shouldered Finch from Africa (*Pytelia phœnicoptera*).

Rather striking is the pearl-white iris of these birds which gives them a sharp expression.

Gooilust, 27th May.

F. E. BLAAUW.

## THE PIN-TAILED WHYDAH.

SIR,—I have to thank Mr. Teschemaker for his courtesy in obtaining as much information as he was able to secure respecting the breeding of this species in captivity. Unfortunately it leaves the question of the parasitic nature of the bird just where it was.

Haagner is mistaken if he asserts that Roberts mentioned any other birds than Waxbills as hosts to *Vidua principalis*: he specifies *Estrilda astrilda* and *Estrilda dufresnii*, and recommends African oologists to examine with greater care all nests of Waxbills which they may come across.\*

Mr. Teschemaker asks why I do not settle the question once for all by breeding the species. He says I have leisure, suitable aviaries and experience. In reply I may say that my experience has not helped me much in breeding species, for the simple reason that my aviaries are not and never were suitable for breeding most birds—certainly not for Whydahs, since they contain no growing grasses. I have also abolished one of my out-door aviaries, because it only produced me one young bird in two years; whereas, as a plant-house, it will be most useful.

Excepting in the winter months I have very little leisure, or have not had hitherto, for I have been constantly occupied in the "making of

\* By the way I wrongly quoted the article as 2nd Ser., Vol. I; it should be 1st Ser. Vol. III.

many books," in answering numerous correspondents, in attending to the wants of my insectivorous birds, and in keeping my conservatory and garden in order. Now that I have practically completed the second volume of my "Foreign Birds for Cage and Aviary" I shall perhaps have a little more leisure, and shall need it for work in my new plant-house.

A. G. BUTLER.

#### MR. FROST'S COLLECTION.

The return of Mr. Frost from Demerara with the collection he has there made for Sir William Ingram, is of course the great avicultural event of the month. The birds are now on deposit at the Zoological Gardens, and the six COCKS OF THE ROCK (*Rupicola crocea*) four adult and two immature males, are attracting great attention. This species, however, has been represented at the Gardens before, and the really greatest novelty of the collection is a little MANAKIN, apparently the female of the Blue-backed species (*Chiroxiphia pareola*), the first of this South-American group of fruit-eating birds to be imported. In appearance it is not unlike the hen Violet Tanager, but larger; the male would be black, with a turquoise-blue back and scarlet crest expanding transversely when erected.

#### THE SOCIETY'S MEDAL.

Mr. P. W. Thorniley has a claim to the Medal for breeding the ARGENTINE BLACKBIRD (*Turdus fuscater*), as detailed in his paper.

#### VALEDICTORY NOTE BY THE EDITOR.

It is with much regret that I have to resign my position as Editor of our Magazine, but I have much pleasure in here tendering my hearty thanks to members for their very kind and loyal support in sending copy so freely. Not once has a shortage of this been a source of anxiety to me, and I have had to hold over a great deal on this occasion for the next number. The reason for my retirement is simply that I cannot afford to pay the attention to the Magazine which I feel it demands. Mr. J. L. Bonhote has kindly consented to fill my place.

---

## POST MORTEM EXAMINATIONS.

### R U L E S.

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# AVICULTURAL MAGAZINE.

Edited by J. LEWIS BONHOTE.



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AUGUST.  
—1910,—



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THE PAINTED-NECKED CASSOWARY.

*Casuarius picticollis.*



# Avicultural Magazine,

BEING THE JOURNAL OF THE  
AVICULTURAL SOCIETY.

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AUGUST, 1910.

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## A PET CASSOWARY.

*Casuarus picticollis.*

By E. J. BROOK.

Visitors to the Zoological Gardens can see the subject of these remarks in the Cassowary house. The bird is the Painted-necked Cassowary, and was caught by Mr. Goodfellow in Papua about fifteen months ago, being then a small chick of about a fortnight old.

The bird accompanied the expedition during the whole of its wanderings. At 10,000 feet "Kitty," as the bird was named, felt the cold a good deal, and I believe passed many a night tucked up in Mr. Goodfellow's bed. When "Kitty" first reached my aviaries she was a delightful pet, would follow anywhere like a dog, and loved to race and play with children.

During all last autumn and most of the winter the Cassowary passed wandering practically where she liked, doing little damage, except in the rock garden, which she stripped of every *Sempervivum* she could reach, the round balls of the plants being swallowed like pills. As the bird grew she got rather too independent, hiding herself when shutting up time came, and occasionally straying long distances and causing much astonishment at various farms she visited. On one of these journeys she swam the river Annan—this was in January—and the river was running cold and big, but the cold water did her no harm. There is nothing "Kitty" hates more than a dog; on one occasion she chanced to see a hound in the park that was on its way to the kennels, having been left out the previous day, she caught that hound and gave it the worst licking it ever had in its life.

I was really sorry to part with "Kitty," but it was quite necessary to do so as she took to kicking and is enormously powerful. I noticed that this bird was particularly fond of a mud bath, she would wallow in any dirty ditch, and when dry the soil would shake out of her hair-like feathers, leaving her clean and glossy.

For food she took household bread and potatoes chiefly, she was also fond of well-boiled rice, but a bowl of dry "B. C." food was looked upon as a particular treat. Apples cut into irregular pieces, also cabbage leaves and bits of the stalks were much appreciated. Earth worms, small birds and mice were swallowed whole. "Kitty" was only ill once, and that for only a short time after eating a number of wire staples.

Cassowaries should have a fairly long trough to drink out of; they do not suck the water up, but take a long sweeping scoop with the beak wide open, and they find a great difficulty in scooping up enough water from a round vessel such as a bucket.

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## NESTING OF THE SULPHURY SEEDEATER.

*Serinus sulphuratus.*

By W. E. TESCHEMAKER, B.A.

This Seedeater is one of the most charming songsters: brilliant in colour, the male being a deep golden yellow: absolutely hardy and perfectly peaceable. What better subject could one want for an aviary bird? And yet it is hardly ever imported (though a common species in South and South-East Africa), and, even if it were imported more frequently, it would probably only fetch a few shillings. What a strange thing it is to see our members tumbling over one another in their eagerness to acquire such useless birds as Parrot Finches and overlooking real merit!

In six years I have only been able to pick up four individuals—two males and two females—and one of the latter, purchased from a member, was of so venerable an age that it really did not count. (N.B.—I am always very pleased to get hold of acclimatised birds, but I wish some of our members would not "pass on" birds which really ought to be in receipt

of old age pensions). Not only is this species rarely imported, but it does not seem to be as well known as it deserves to be. For instance, in Dr. Butler's excellent "Foreign Finches in Captivity" the female is described as "slightly duller than the cock, with less-defined yellow streak on the face." Both the females that I have seen have been dark grey with whitish throat and superciliary streak and dull reddish-yellow rump. The male can sing as well as a Cape Canary and both sexes have a curious call-note, which sounds to me exactly like the words "Pleased to see you."

I feel sure there can be no difficulty in breeding this species, and yet, out of fifteen nests and no less than sixty eggs, only two young were hatched. One of these, hatched in 1905, grew to be a good size but disappeared in the usual mysterious manner just before it was ready to leave the nest. Practically every clutch has consisted of four eggs, and of these three have usually been light blue with a few black spots on the larger end and the remaining egg unspotted.

On the 8th July, 1909, I found one young one some days old in the nest: it was thinly covered on the head and back with whitish down. On the 13th it had quill feathers in the wings. On the 15th its eyes were open: its beak was yellowish and lighter in colour than the adults. On the 20th it left the nest and was then a light buff-grey with bold, dark brown striations on the breast and smaller ditto on the back; there was some yellow on the margins of the primaries, and it resembled its mother in its light superciliary stripe and pale yellow rump. It retained a little down on the head until the 25th. It was a fine youngster, and naturally its mother was immensely proud of it, being the only child of her old age, but, when she went to nest again, I regret to say that its father used to neglect it and even drive it away from the food-tins. So on the 1st August I placed it by itself in the next division of the aviary, and here it seemed to get on well, but on the morning of the 7th I picked it up dead but well nourished. It certainly did seem hard that the first young Sulphury I ever succeeded in rearing should have been so quickly snatched away by the grudging hand of Fate.

I have always been careful to provide myself with actual proof of nesting results—I think one owes this to oneself as well



as to the Society—so I sent the late lamented the same day to Shopland, the taxidermist, of Torquay, to be made into a skin. The weather was sultry, and next day I got a post card from Shopland to say he could not make a skin of it. I wrote by return asking him to put it in spirits but when, by the following post, I received only a small handful of feathers I am afraid—to perpetrate a mild pun—that my remarks were also rather sulphury.

However, as I write (19 June, 1910), the old hen Sulphury—getting a little bald but otherwise wearing her years lightly—is sitting again, and perhaps I may this season be able to produce something more tangible in the way of evidence. The old male is as gallant and debonair as ever: he sits by the nest and warbles to his better half and scoffs at Time.

I have not been able to ascertain whether this species has been bred or not.

P.S.—I see that Stark and Sclater say that “the young remain in the nest from three to four weeks.” I wonder if this is correct. The young bird mentioned above left the nest about the 15th day and could feed itself by the 26th day.

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## STRAY NOTES ON INDIAN BIRDS.

By FRANK FINN, B.A., F.Z.S.

(Concluded from page 288.)

MASKED BOOBY. *Sula cyanops*.

I saw specimens between Aden and Bombay in 1898.

DIVING-PETREL. *Pelecanoides urinatrix*.

Blandford rejects the claim of this species to figure in the Indian list, but I saw, between Aden and Bombay, in the autumn of 1897, a short-winged black and white sea-bird which could hardly have been anything else. While on the subject of Petrels I may say that I have seen plenty, and never noticed that they ran along the water any more than Gulls do.

WHITE STORK. *Ciconia alba*.

Storks are supposed to have no voice, but the young of this species certainly utter a wheezing squeak; so do young American Jaberus (*Mycteria americana*).

PAINTED STORK. *Pseudotantalus leucocephalus*.

I met a gentleman in India who told me that at a breeding-haunt of this bird he got the local natives to climb the trees and catch the old birds, then clipping off their pink wing-plumes and letting them go. This is a good harmless way of getting plumes, but birds would have to be very tame, even for India, to stand it!

CATTLE EGRET. *Bubulcus coromandus*.

This species eats cockroaches—the large *Periplaneta americana*—readily, as many as fifteen at a meal, and does not always cast pellets. But the specimen I observed cast a very perfect one after receiving some small birds broken up and, some time previously, cockroaches. The pellet contained some only of the bones, some feathers, and hard parts of the insects. Yet I saw no pellets after the Egret had received a Gecko lizard and several cockroaches, all at one meal. The gecko was given alive, and its tail came off on attack, as usual, but the bird did not let the reptile escape, but seized it again, and only ate the still-wriggling tail after the lizard was swallowed.

COMMON FLAMINGO. *Phoenicopterus roseus*.

These birds, not only swim well, but will turn “end up” to feed in deep water, like ducks; at any rate, two I kept on the Museum pond did so. They also eat water-snails. With regard to the affinities of the Flamingo, I may remark that there are two points, independently of its anatomy, which ally it to the Stork and Ibis group rather than the Ducks; one is that the young, although not helpless, are fed from the bill by the parents, and the other is that the young fledge like Storks, the wings being full-sized and well-quilled when there is still some down on the body, as may be seen in the just-fledged specimen of this species exhibited in the South Kensington Museum. In ducks, as everyone knows, the wings long remain small, and feather only when the bird is nearly full-grown and plumaged.

GREY-LAG GOOSE. *Anser ferus*.

The common domestic goose of India has been supposed to be a hybrid between the domestic race of this bird and that of the Chinese Goose (*Cygnopsis cygnoides*), but I do not think this is right, as domestic Indian geese never, so far as I know,

show any resemblance to the European tame geese; they never, for instance, show any of the characteristic grooving of the neck-feathers conspicuous in the Grey-lag and its tame descendants and even in the hybrids of these with the Chinese goose. The gander of these Indian tame geese is quite as often pied as white, unlike what obtains in European common tame geese.

COMB-DUCK or NUKTA. *Sarcidiornis melanonota*.

There is a good deal of variation in the speckled head-colour of the male in this species, some specimens having more black than white, while in others the white predominates. A male I got in immature plumage and sent to the Calcutta Zoo moulted out into a fine bird with a very light head, but, curiously enough, with the flanks nearly black, thus closely resembling the American Comb-duck (*S. carunculata*).

WHISTLING TEAL. *Dendrocygna javanica*.

The eyes of this bird are not only proportionately but absolutely larger than in its bigger Indian relative, the Large Whistling-teal or Fulvous Duck (*D. fulva*). These "Whistlers" dive as freely as Pochards, but with a spring like a Coot. The small species is very quarrelsome; I have seen several unite on Rutledge's pond to attack Spotted-bills, and a Calcutta friend of mine, a very observant sportsman, used to say that whenever he heard that confounded whistling he knew there would be no decent ducks on *that* tank—he despised Whistlers as not being fast enough on the wing for sporting shots!

COTTON TEAL. *Nettopus coromandelianus*.

I have (*Avicultural Magazine*, VII., p. 131) described the courting gestures of the drake of this charming little species in our pages previously, but I may add here that the gesture of bending down the head is seen in both sexes when about to fight, and apropos of Cotton Teal's fights it is noteworthy that though females will attack males and each other as well, males will not fight females, though they will attack young drakes in the female-like immature plumage as well as their full-plumaged companions.

MANDARIN DUCK. *Æx galericulata*.

Although only once recorded in Indian limits as a wild bird (in Assam in 1902) this species is often imported alive from



China, and pinioning not being practised by natives, probably often escapes. In Calcutta in my time they cost 30 rupees (£2) a pair. I recently saw a female at the Zoo imitate her drake in the gesture of dipping the bill in the water, and then putting it behind the partly-opened wing, which looks so much like an attempt to draw attention to his fan.

MALLARD. *Anas boscas*.

The common domestic duck of India is descended from this species, and although the Muscovy (*Cairina moschata*) is more often kept than here, it is, I think, chiefly known as a curiosity. Hybrids between them are not uncommon, and have neither the curls of the Mallard's tail, nor the bare face of the other parent. The brown ones, which bear some resemblance to the Mallard in coloration (they are often black and white and sometimes grey and white), go into undress plumage like Mallard and common tame drakes. Some of these hybrids I kept were, curiously enough, more inclined to perch than the true Muscovy, roosting at night regularly in a tree. I have seen some stand when resting with the body erect like a Cormorant. The "Indian runner" breed of tame duck, by the way, I never saw in India.

SPOTTED-BILLED DUCK. *Anas pæcilorhyncha*.

Rutledge told me he had twice known a female of this species pair with a mallard-coloured tame drake. On the last occasion I saw the birds. Male Spotted-bills were also present and ready to pair, and also two Mallards, but these were indifferent. The late Mr. C. Fawns, formerly steward on one of the "City" line of steamers, who had much to do with waterfowl, told me that in Scotland the Spotted-bill when turned out crossed readily with Mallard. The female in captivity is very apt to get the white webs of the tertiaries clouded with brown, not long after the moult. I do not know how this colour comes in—perhaps by abrasion—but it is peculiar and significant that the brown markings are of the same pattern as the dark markings on the corresponding feathers in the Mallard's female.

GADWALL. *Chaulelasmus streperus*.

I once saw a male of this species in the Calcutta Bazaar glossed with plum-colour behind the eyes. The white wing-bar

is more conspicuous in the female in repose; but appears in the male when showing off; his courting gestures are like those of the Mallard, Pintail and Common Teal.

BAIKAL TEAL or CLUCKING TEAL. (*Nettion formosum*).

I have before noted (*Avicultural Magazine*, N.S. V., p. 316) the variation in the colour of the feet, grey or olive, in this species; this has nothing to do with sexes as the following notes show. In 1901 there were a pair in the London Zoo, of which the male had grey and the female olive feet; two males kept for sometime in the Calcutta Zoo both had olive feet. Of a consignment which were brought to Calcutta from abroad in 1902, some had olive feet, but I did not note their sex; and in a consignment now with Mr. Hamlyn, I note some olive-footed ones.

I have, however, only seen one specimen with the bill olive, an Indian-caught female, I procured in Calcutta market in the winter of 1898-99. In all others the bill has been grey, nor have I noticed any variation in the eyes.

GARGANEY. *Querquedula circia*.

Of six specimens of the pallid or cinnamon variety of this duck I have seen, three were males and three females.

POCHARD. *Nyroca ferina*.

Blanford gives the irides of this duck as orange-yellow; I have usually found them red in the male, very rarely yellow; brown in the female, though I once saw a red-eyed female in St. James's Park.

EASTERN WHITE-EYED DUCK. *Nyroca baeri*.

When this bird was obtainable during its invasion of India I placed some specimens on the Museum pond without pinioning them. Thus a full-winged male arrived some time during the winter of 1900-01 and stayed till May in the latter year, while a full-winged Common White-eye (*N. africana*) left long before. One full-winged bird even kept a pinioned pair company for more than a year, never flying, so far as I saw, till in his second year of residence I caught him up during his moult and gave him away to go to England along with the pinioned birds.

TUFTED DUCK. *Nyroca fuligula*.

This bird is supposed to be poor eating, but I have tried it in England, and found it tolerable enough. In this specimen's gizzard there was some coarse sand.

GOLDEN-EYE. *Clangula glaucion*.

My experience with eating this bird in England and finding sand in its gizzard was similar to that with the last. I mention the sand because I have seen somewhere a statement that the diving-ducks do not swallow this.

SMEW. *Mergus albellus*.

A specimen they had in the London Zoo some years ago ate ordinary biscuits readily, even from the hand, and a Red-breasted Merganser kept later would even eat bread.

GOOSANDER. *Merganser merganser*.

Rutledge once had a consignment of these birds brought down from the hills which had been fed solely on raw rice (not paddy, but husked as for cooking); I saw them eating it myself, and they were in good condition. Taken in connection with what is said above, this shows that Mergansers can be fed to some extent on vegetable food.

INDIAN DABCHICK. *Podiceps albipennis*.

I have never observed any of the specimens of this bird I possessed eat their own feathers as other Grebes do.

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NOTES ON THE AGE OF BIRDS IN  
CONFINEMENT ;

WITH A FEW PRACTICAL NOTES ON THEIR MANAGEMENT.

By J. LEWIS BONHOTE, M.A., F.L.S., F.Z.S.

(Concluded from page 267).

47. STORK (*Ciconia alba*).

9 years, still living; 5 years 11 months, 3 years 3 months.

Delightful tame and hardy birds in confinement. Mine were kept at liberty (pinioned) in the garden, with no artificial shelter. The living bird is this year sitting on eggs in the Zoological Gardens. They are practically omnivorous; grain, bread and butter, young ducks, meat and fish—nothing comes amiss, but I would only recommend the latter.

48. SPOONBILL (*Platalea leucorodia*).

3 years 1 month; several died after two or three months.



A very delicate species in captivity. Their food (fish) must be given them in water, cut up small, and the bones removed. They must be shut up in cold weather and would, I believe, do better with a moderate amount of heat, though mine never had that luxury. It eventually died of starvation, as it refused all food when moved from my Cambridge aviaries.

49. WHITE-FRONTED GOOSE (*Anser albifrons*).  
7 years 3 months, still living, and 3 years 10 months.
50. BEAN GOOSE (*Anser segetum*).  
2 years 5 months.
51. BRENT GOOSE (*Bernicla brenta*).  
8 years 1 month to 1 year 4 months; four individuals.  
Average 3 years 2 months. I have never kept many geese owing to lack of space, and with the exception of this species I have had to part with those I had. They seem to be very hardy and peaceful with other waterfowl.
52. MANDARIN DUCK (*Æx galericulata*).  
7 years 10 months and 4 years.
53. SUMMER DUCK (*Æx sponsa*).  
7 years 7 months.
54. WHITE-FACED TREE DUCK (*Dendrocygna viduata*).  
2 years 5 months, still living, and 1 year 4 months.
55. SHELLDUCK (*Tadorna cornuta*).  
7 years 11 months, still living. (These birds were just fledged when I received them). 1 year 6 months. Five examples; average 5 years 4 months. Laid but did not incubate.
56. RUDDY SHELLDUCK (*Tadorna casarca*).  
5 years 7 months, still living and at present nesting in the Zoological Gardens. The Shellducks become delightfully tame in confinement, but drive other ducks about during the nesting season.
57. WILD DUCK (*Anas boscdas*).  
10 years to 5 years 8 months; four individuals.  
Average 7 years 9 months.

I kept very few of this species owing to the pugnacity of the males during the courting season. If the extent of

water be limited it is almost impossible to breed ducks unless each pair be kept separate, but the breeding pen may be of extremely modest dimensions. This, of course, does not apply where one drake is kept with several ducks, but only when the sexes are approximately equal. In these cases each duck will be worried in turn by all the drakes, and, for a few weeks, will be given no peace or rest until eventually she is killed. Although this is a normal course in the case of Mammals, I have never known or heard of similar cases in birds. In ducks, however, I have observed it every year. There is no doubt that ducks choose their own drakes, and in this species at least it seems more than likely that sexual selection plays a considerable part. In most cases birds once paired will, if opportunity occurs, mate again every year, although they may have been separated during the winter. The drakes remain with the duck until the young are hatched, after which they retire to moult. The assumption of the eclipse plumage of the drakes is, to a large extent, dependent on the hatching of the young, and although all drakes assume the eclipse plumage it usually shows itself much earlier in the year in breeding birds than on those which are not paired. Roughly speaking, under normal conditions, the eclipse plumage will first show itself about five weeks after the duck commences incubation. It is perhaps also worthy of note that, if suitable shelters are made, laying can be advanced by two or three weeks. In some of my pens bushy laurels were grown as nesting cover, whereas in others straw shelters were erected, and during the last four years, without exception, eggs were always laid in the straw shelters considerably before they were in the other pens. These notes refer largely to my hybrid ducks. (See also *Avic. Mag.*, 1st Ser., Vol. II., p. 160.)

58. SPOTBILL (*Anas pæcilorhyncha*).

6 years 7 months.

59. AUSTRALIAN WILD DUCK (*Anas superciliosa*).

7 years 8 months, still living, and 2 years 5 months.

## 60. HYBRID DUCKS.

(*Anas* × *Dafila*) and (*Anas boschas* × *A. pæcilorhyncha*).  
11 years, still living, 6 years, 5 years 8 months.

I can give no definite particulars of hybrid ducks as they were generally killed off from want of space, or as specimens, but they seem to be quite as long-lived as the pure species. The bird that has reached eleven years is the only instance I have so far met with of genuine old age. This individual ceased to breed after his eighth season, and became nearly blind last year, and there can be little doubt that he is nearing the end of his natural term of life. He is the oldest duck I have.

61. GADWALL (*Anas strepera*).

6 years one month, still living, and 5 years 7 months.

62. SHOVELLER. (*Spatula clypeata*).

6 years 3 months, 2 years 1 month; six individuals.

Average 3 years 8 months. [This does not include several kept and killed for plumage purposes.]

This species, as compared with some others, is rather delicate. They have hatched and reared with me. The young must at first be fed on the water.

63. PINTAIL (*Dafila acuta*).

10 years 5 months, 4 years. Four examples; all living.

I have never lost a Pintail from natural causes.

Average 6 years 10 months.

64. TEAL (*Querquedula crecca*).

4 years, still living, to 1 year 1 month; three individuals.

Average 2 years 3 months.

This is not a delicate species, but I have lost many, when they first arrived, from rats, for being shy they hide up in the undergrowth and allow themselves to be killed.

65. GARGANY. (*Querquedula ciria*).

4 years, still living, and 1 year. Two examples.

This bird is decidedly delicate during its first winter; in addition to which it falls a prey to rats, as in the case of the previous species.

66. WIGEON (*Mareca penelope*).

10 years 6 months, 9 years 7 months, 7 years 11 months,



1 year 2 months, all living; 5 years 9 months, 4 years 4 months. Six examples. Average 6 years 6 months.

67. POCHARD. (*Fuligula ferina*).

5 years 5 months and 2 years 2 months.

68. TUFTED DUCK. (*Fuligula cristata*).

4 years 8 months; 3 years 6 months. Three examples.

Average 4 years 1 month.

69. SMEW (*Mergus albellus*).

5 months.

This species should live for some time once it is well on its food. (See *Avic. Mag.*, Ser. 2, Vol. III., page 120).

70. WOOD PIGEON (*Columba palumbus*).

6 years 9 months; 1 year 10 months. Five examples.

Average 3 years 5 months. Pigeons are hardy but wild and unsatisfactory in an aviary.

71. STOCK DOVE (*Columba ænas*).

7 years; 1 year 5 months. Six examples.

Average 3 years 7 months.

A much quieter species than the foregoing and, I should say, rather more delicate.

72. ROCK PIGEON (*Columba livia*).

6 years, still living; 1 year eight months. Many examples.

From a pair of pure Rock Pigeons, taken wild in Ireland six years ago, I have bred many young birds. They are as hardy as domestic pigeons and adapt themselves to confinement quite as well. An attempt, however, to establish them at liberty in a dove-cot failed. Six were liberated—one pair remained and bred, and a single bird lived alone at the opposite end of the garden. The young birds were never seen after they were on the wing, and the parents were caught in a dying condition early this spring, possibly from having fed on poisoned grain. From the pair at liberty I bred one chequered bird, the only one of many bred that showed any deviation from the normal type. It was caught up but, unfortunately, met with an accidental death.

73. TURTLE DOVE (*Columba turtur*).

5 years one month; 1 year 4 months. Six examples.

Average 2 years 6 months.

These birds are perfectly hardy, but the low average of life is due to losses from rats. In common with the other species of pigeon they breed and rear freely in confinement. In Turtle Doves the period of incubation is only 13-14 days, and the young are fully fledged a fortnight after hatching. In the Rock Pigeon (*C. livia*) the periods are nineteen days and about a month.

74. SPOTTED PINTAIL SANDGROUSE (*Pterocles senegallus*).  
1 year 9 months, still living.

Note should be made of Mr. Meade-Waldo's Sandgrouse that lived over 17 years in confinement. (See *Avic. Mag.*, 3rd Ser., Vol. I., p. 133).

75. HEY'S PARTRIDGE (*Ammoperdix heyi*).  
1 year 5 months, still living.

This species does very well in confinement where it nests freely, but the hens are very bad sitters. Several are reared yearly at the Giza Zoological Gardens under bantams.

76. QUAIL (*Coturnix communis*).  
1 year 7 months.

The lives of this and the three following species have frequently been cut off by rats!

77. HARLEQUIN QUAIL (*Coturnix delegorguei*).  
2 years 3 months. (See Seth-Smith, *Avic. Mag.*, Ser. 2, Vol. V., p. 23).

78. AUSTRALIAN SWAMP QUAIL. (*Synæcus australis*).  
2 years 3 months and 1 year 4 months.  
(See *Avic. Mag.*, Ser. 2, Vol. III., p. 263).

79. CHINESE QUAIL (*Exfalcatoria chinensis*).  
2 years 8 months.

My pair never bred, though this species has frequently been known to do so in confinement. For further notes see Butler, *Avic. Mag.*, Ser. 1, Vol. IV., p. 1; Seth-Smith, *loc. cit.*, Vol. IV., p. 200; Meade-Waldo, *loc. cit.*, Vol. V., p. 1, and Seth-Smith, *Proc. Int. Cong. Orn.*, p. 666 (1905).

80. BAHAMA QUAIL (*Ortyx bahamensis*).  
3 years 4 months and 2 years 1 month.

I brought back several examples of this pretty species from the Bahamas. They have nested on several occasions

but always in the autumn, September and October, and I lost two hens owing to their nesting during the inclement weather. One brood I hatched, but they died from lack of insect food. Males of this species are spiteful in an aviary to others of their own kind.

81. LAND RAIL (*Crex pratensis*).

2 years 7 months. Several examples.

Once accustomed to an aviary this is a hardy species, but it should have a liberal and varied diet of meat, egg and seed. This species has bred and reared in my aviaries. (See *Avic. Mag.*, 1st Ser., Vol. II., p. 179; *Zool.*, 1897, p. 35 and *loc. cit.* 1900, p. 29).

82. WATER RAIL (*Rallus aquaticus*).

1 year.

This species is rather difficult to procure alive, and several specimens have been brought to me exhausted during hard winters and have not lived for any length of time. They moult their flight feathers simultaneously like the rest of the Rails.

83. SPOTTED CRAKE (*Porzana maruetta*).

2 years 8 months and 1 year 2 months.

I have only been able to secure one pair of this species. They seem to be very hardy, and are delightful in an aviary, though at first they are very shy and hardly ever show themselves.

84. MOOR HEN (*Gallinula chloropus*).

9 years 8 months, still alive, and many other examples.

This species has several times bred and reared in my aviary; the young being reared without any special insect food. One pair only can be kept if they are nesting, but I have found them very peaceful to birds other than their own species. Several half-nests are always built, the eggs being laid in one of them, but sometimes a new nest will be begun and the first egg laid within twelve hours. The bill loses its bright red colour for a month or two in autumn.

85. COOT (*Fulica atra*).

4 years 5 months. Two examples.



I have only had one pair of this species, and they died within two months of each other. They live well but are uninteresting birds in confinement.

86. DEMOISELLE CRANE (*Grus virgo*).

5 years 1 month and 1 year 10 months. Two examples.

My eldest bird died of a disease which it took from the younger bird. It was a slow lingering disease, which lasted about six or eight months; it may have been tubercle but this is not certain. No other birds in the same run took it; when examined the liver was found to be full of circular cheesy growths.

87. STONE CURLEW (*Ædicnemus crepitans*).

1 year 2 months.

I have had many examples of this species. They cannot stand much cold and should be given plenty of meat or animal food. I have dealt at some length on the treatment of the Wading Birds in *Bird Notes*, Vol. II., p. 228 (1903), and in the *Avic. Mag.*, Ser. 2, Vol. V., p. 107, and would refer readers to these articles for notes on how to keep them.

88. GREY PLOVER (*Squatarola helvetica*).

2 years 10 months and 1 year 4 months.

Rats have been my greatest enemy with regard to keeping these and other Waders. Sooner or later, in spite of elaborate precautions, a rat breaks in the aviary and by morning irretrievable damage is done.

89. GREEN PLOVER (*Vanellus vulgaris*).

2 years 5 months and 1 year two months. Many examples.

This species has mated in my aviaries, but never laid; I believe a pair bred in the garden of Mr. A. M. Chance, near Birmingham, but cannot find the reference.

90. OYSTER CATCHER (*Hæmatopus ostralegus*).

7 years 3 months, still living; 1 year 2 months.

Six examples. Average 3 years 11 months.

In spite of a fairly high average length of life this is not a very easy species to keep, but it is not specially attractive to rats. A certain amount of fish is almost essential if it is to be kept in health. The bill also grows

during the summer and needs constant attention. They suffer somewhat from bad feet, which may be remedied by continual cutting and scraping. It will, however, be largely prevented, which is better, if the ground is partly grass and partly rough stones; dry sand is the worst form of floor.

91. DUNLIN (*Tringa alpina*).

7-6 months.

I have only kept three or four examples, and have never succeeded in moulting them. They are decidedly delicate.

92. KNOT (*Tringa canutus*).

5 years 6 months and 1 year 1 month. Five examples.

Average 2 years 10 months.

One of the hardest species in confinement, chiefly, I believe, because in a wild state, especially during the summer and autumn, they feed largely on a vegetable diet. They have paired in my aviaries but did not lay. For many years the only supposed Knot's egg known was laid in the late Lord Lilford's aviaries during the summer of 1893. (See Newton, *Ootheca Wolleyana*, p. 207).

93. RUFF (*Machetes pugnax*).

4 years 1 month and 1 year. Six examples.

Average 2 years.

A very hardy species in confinement, assuming its summer dress yearly. It has been known to hatch and rear. (See *Avic. Mag.*, Ser. 2, Vol. 1, p. 400).

94. REDSHANK (*Totanus calidris*).

1 year 9 months. Two examples.

95. BLACK-TAILED GODWIT (*Limosa belgica*).

3 years 9 months and 1 year 1 month. Seven examples.

Average 2 years 6 months.

A fairly hardy species, but does best if taken indoors during the winter. With this, as with all Waders, moulting is the main trouble; properly kept, most species will live until the autumn, but if they do not complete their moult before winter they are almost certain to die during February and March. Good food, combined with a little

artificial heat during August if the weather be cold, is the best means of bringing them through their moult. It should be borne in mind that most Waders pass the winter in the tropics and, in my opinion, the majority of adult birds reach their winter quarters during September, and do not leave them till April. Individuals met with in England after the middle of September are almost entirely birds of the year. In this species all the birds have left their breeding quarters by the middle of August. The spring moult is not so important, and many wild individuals do not assume it completely.

96. CURLEW (*Numenius arquata*).

3 years 9 months and one year. Five examples.

Average 2 years 1 month.

The secret of keeping this bird in health is to give it abundance of animal food—earthworms, meat and fish.

97. BLACK-HEADED GULL (*Larus ridibundus*).

5 years 7 months and 1 year 4 months. Five examples.

Average 2 years 8 months.

This species is (for a Gull) rather delicate in confinement. They have never shown any signs of nesting with me, although always assuming their full summer plumage at the proper season.

98. JAMESON'S GULL (*Larus novæ hollandiæ*).

6 years 1 month, still living, and 1 year 8 months; only two examples, both at least eighteen months older.

99. COMMON GULL (*Larus canus*).

4 years 5 months and 3 years 5 months; both still living.

Although they have not nested with me, these birds paired up and this year were evidently about to nest when they had to be removed.

100. HERRING GULL (*Larus argentatus*).

10 years 8 months, living, and 3 years 4 months.

Nine examples.

The shortest lived one was at least seven years old, being fully adult when I received him. Average 6 years 2 months. Gulls are notoriously long-lived birds and ex-



tremely hardy, requiring no shelter of any kind and feeding well on any animal refuse, though mine were always fed entirely on fish. In a suitable place they will breed and rear their young without any extra attention, but they are not quite such free breeders in captivity as is supposed. If possible they should be kept in an enclosed aviary and allowed the full use of their wings; they will live well enough when pinioned, but if pinioned and unpinioned birds be kept under the same conditions the difference in favour of the full-winged birds is striking. No full-winged gull of the larger kinds has ever died in my possession.

101. LESSER BLACK-BACKED GULL (*Larus fuscus*).

9 years 9 months, still living—at least 4 years older.

3 years, still living.

The same remarks apply as in the case of the foregoing species. One Lesser Black-back amongst several Herring Gulls will probably be persecuted during the nesting season. This is the oldest bird that I know of in my aviaries: it was in full nesting trim last year, when at least thirteen years old.

102. GREATER BLACK-BACKED GULL (*Larus marinus*).

6 years, still alive. Three individuals.

These birds were all hand-reared six years ago; one pair is at present (May 1910) nesting in the Zoological Gardens. In a comparatively small enclosure they are very quarrelsome, both amongst themselves and with other species. If kept with ducks or other waterfowl they will soon kill them, and also become adepts in catching any sparrows or rats that venture into their aviary.

103. GUILLEMOT (*Uria troile*).

4 months.

I reared several of these birds from the nest one year, but the last eventually died of enteritis. I believe this was accelerated by its continually sitting on the damp ground; unless actually on the water they should do better if kept quite dry.

104. PUFFIN (*Fratercula arctica*).

3 months.

These birds were also reared from the nest and died of a peculiar kidney trouble, possibly through lack of salt. They were strictly nocturnal, sitting in a dry corner of the aviary all day and going to the water only at night.

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ORNITHOLOGICAL RAMBLES.

By H. GOODCHILD, M.B.O.U.

*(Concluded from page 246.)*

The Thursday had been hot, with an atmosphere and clouds that suggested thunder, but Friday, August 6th, was hotter, with a cloudless sky. I decided to spend the day in going to the top of our highest mountain (Crossfell 2,930 feet). Suitably dressed for exposure to a blazing sun, I sallied forth with a full equipment of binocular, notebook, map, and compass—the last in case the weather should change and mist come down while I was on the tops—and carrying over my arm my “protectively coloured” grey jacket (closely assimilating to the weathered grey limestone and sandstone rocks) trudged cheerfully over the moorland, feeling far less oppressed, despite the greater heat, than I had done on the previous day. On my way, I saw the Carrion Crow and Woodpigeon, and heard the Pipit and the Skylark. From the top of the flat topped hill (where I sat down to rest and observe) I heard and saw a Curlew. Knowing that this hill was in full view of a group of rocks high up on the top edge of the steep sided valley in front of me, I looked carefully and saw, at a distance of about a mile, a solitary black object on the grass above the rocks, apparently posted there like a sentinel to keep a watchful eye over the wide panoramic view it commanded. I had just noted the fact in my pocket book, when the bark of a Raven sounded in my ears. I immediately began to search the skyline over the limestone crags where the Carrion Crows had been seen the previous day, but saw no Raven there, nor bird of any kind, when again the bark sounded. This time the bark came from the zenith. I lay back and looked into

the cloudless sky, and there, right above me, but almost a speck in the blue, was the Raven, sailing slowly round in circles, a thousand feet or more over my head. With my prismatic binocular I could see him well enough to make a silhouette of him in my sketch book, and when he had sailed away I got up to continue my journey along the trout stream. Cautiously and quietly I walked towards the rocks (which I knew to be a favourite resting place with the Ravens) stopping every hundred yards or so to look at the black sentinel, which however, sat steadily on, and never moved. When I got to within half-a-mile or so I began to get suspicious, and when I arrived at a quarter-of-a-mile my fears were confirmed—the sable sentinel was nothing else than the underside of a rock sticking up obliquely, but which, in the blazing sun, showed a black patch against the grass, about the size and shape of a Raven! This was a distinct disappointment to me, as I had hoped to see how near a watchful Raven would allow me to approach, in full view, before he took wing. However, I resolved to compensate myself if I could by gathering any feathers there might be about the rocks, and climbed up towards them. Although I was here at an altitude of some 1,500 feet, I saw a Small Tortoise-shell Butterfly flitting about in the sun, and the insect seemed inclined to accompany me on my climb, for it passed me two or three times. A Meadow brown Butterfly was also seen close by the stream before I left it. Arrived at the rocks, I searched round them but only found one feather, a medium primary of the left wing, which I have no doubt from its size and colour, was from a Raven. No “casts” did I find, nor any other sign of birds, though on a previous occasion I had seen both and found more than a solitary feather to tell the tale that it was a favourite look-out with them. The view afforded was so fine that I sat and looked at it and rested myself after my climb, as the hillside below was one of the steepest in the district.

Leaving this favoured spot my line of advance took me over some beds of large weathered chunks of sandstone, in negotiating which one had to be very careful as, although the surface of them was rough and afforded a good grip for one's boots, there was here and there a stone that might tip up and



cause a nasty fall or even a broken ankle. These beds of broken sandstone rocks were a characteristic feature of the high grassy moors—2,000 feet or more in altitude—that I was now on. A Pipit attracted my attention on one of these beds, and then another; these two birds, it seemed to me, were more tawny than even the Tree Pipit, and as I looked at them from only some ten yards distance, I found there were others, and counted fourteen in all. Careful comparison showed that there were Pipits there of three distinct shades of colour: the darkest were nearly as grey as the weathered sandstone rocks they were on; the next were appreciably browner, about Skylark colour, while two of them were distinctly yellowish tawny and, according to my note put down at the time, “reminded me of the female Yellow Bunting” in colour.

The best part of the afternoon was spent sketching on this high mountain slope, and about half-past four I moved on to the summit. Two Whinchats were seen amongst stone beds at the base of the last rise at an altitude of about 2,800 feet, and two Pipits, apparently Meadow Pipits, flitted round me as I sat at a spring beyond the plateau of the top, enjoying what should have been lunch, but which I partook of after five o'clock, with water at 34° Fahr. instead of tea.

Returning by a different route, the head waters of the river Tees were explored, and a Kestrel rose near by and went and settled in sight some two hundred feet away. Selecting the easiest gradient for the return journey, I was interested to find, on what would have been a ridge if it had not been so rounded, several feathers of the Red Grouse; and at 7.30 p.m., passing near one of several tiny moorland pools or tarns, with no water flowing into or out of them, I flushed the first Red Grouse I had seen for certain—a solitary adult—at about two thousand feet, and this bird flew off down into the nearest valley, complaining as he went at being disturbed. Lower down on this tongue of the mountain, at 7.45, as I was nearing the lowest group of peaty tarns, the croak of a Raven, rapidly repeated, came over from Gurt Deäl—the deep valley lying between the spur I was on and Crossfell—and I looked in vain along the skyline of Crossfell. Again the sound came, this time from above the tongue where I

was, and then I saw two Ravens travelling southward. I got the glass on to them and saw three in its field at once at a considerable height. While descending the steep slope formed by the lowest outcrop of limestone, the Ring Ouzel's alarm note sounded sharply in the evening stillness, but at first the bird could not be seen. It was seen soon after and flew towards the big valley on my right—the only Ring Ouzel I had seen or heard that day. My last ornithological item was of a Heron which rose from the Trout stream I had passed up at mid-day, and when this bird got well away I saw there were two Herons, which flew down stream out of sight. Thus ended the observations of one of the finest and most enjoyable days of my holiday.

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## NOTES ON SANDGROUSE.

By C. BARNBY SMITH.

Sandgrouse do not seem to excite the enthusiasm of most aviculturists and, perhaps for this reason, are very difficult to obtain from dealers.

The Pallas Sandgrouse, which periodically visits this country, is perhaps more difficult than any to get hold of, and although for some time past Mr. Hagenbeck has been trying to get me some of these birds from Central Asia, yet, so far, they have not arrived.

A request to Senor Saccone to get for me some *Pteroclorus pyreniacus* (which is, I am given to understand, one of the most beautiful varieties of Sandgrouse) from Spain has elicited the reply that they are very difficult to catch, and no birds have arrived.

My hopes of obtaining the rare Tibetan Sandgrouse ran high last year when a merchant travelling in that country promised to get some. Alas! he only managed to get one or two chicks and these he failed to keep alive. Evidently he got hold of the right birds, as they were said to have "no hind toes."

In another direction I have been much more fortunate. A friend very kindly sent me over three Indian Painted Sandgrouse (*Pterocles fasciatus*) caught near Bhopal in Central India. The birds (a cock and two hens) arrived in good health in the early

part of last February. At the same time a consignment of the Common Pintailed Sandgrouse (*P. exustus*) arrived. These birds seem to travel well, as out of eighteen birds that left Calcutta sixteen arrived alive.

Such of the Pintailed Sandgrouse as I retained for myself I put at first with the Painted Sandgrouse in the conventional sort of place—a large wooden shed (with sand floor) open on the South, on which side it has a sort of glass verandah with grass on the ground underneath.

The birds were, and are, fed on millet, canary, maw, rape, and hemp seeds, but seem to like millet best of all. They are also supplied with lime, small flint, grit and rock salt.

The Pintailed Sandgrouse do not seem to care for grass at all but love to squat in the sand, basking in the sun whenever possible. The greatest danger with these birds seems to be their sudden panics, which makes them dash violently against the sides of the enclosure unless the feathers of one wing are heavily cut. My birds arrived late at night (as birds always seem to do) and when I went to look at them the following morning the whole lot were dashing with wild flights and shrieks of terror in all directions. It was only prompt and resolute action with a landing net and subsequently with a pair of scissors that put a stop to their apparently determined efforts at suicide.

The Pintailed Sandgrouse soon become comparatively tame and run about on the sand with contented little “crooning” cries. I have noticed they are much steadier when divided as, when a lot are together, the alarm note of one at once sets off the others attempting to fly. So far I have seen no signs of nesting, though I have divided them into several different enclosures in hopes they will do so.

The habits of the Painted Sandgrouse were from the first strikingly different from those of the Pintail. When the latter were frightened their instinct was to fly, whereas the Painted Sandgrouse crouched all together in a corner as though it was their nature to seek cover; although, as a fact, there was no cover there.

I accordingly provided them with another enclosure very similar to the first, except that nearly all the floor space was covered with tussocks of grass, small box bushes, dwarf juniper,



etc., of course with sandy spaces at intervals. I found the birds always loved to lie in the sun near a tussock of grass, and would be seen to have moved their position several times a day so as to get full sunshine. This surprised me, as they are said to be crepuscular and nocturnal in habit. Their large staring black eyes would quite give one this impression. Whatever they do by night their habits by day are most unexpected, and they justify their common name of "painted" in an extraordinary manner, for they might as well be merely painted birds as far as any movement can be observed in progress. One might go to look at them half a dozen times a day for weeks without seeing them making any movement. The seed put down vanishes, and the birds keep a good gloss on their feathers and appear to be in excellent health. Very occasionally one may be seen moving, but the same instant the bird will catch sight of you and draw in its head and remain squatting motionless, however long you remain to watch. If approached within about a couple of feet however the bird will attempt to fly, with its wild alarm note of "Yek—yek—yek," and land behind another tuft of grass. After one attempt to fly, if again approached, it will permit itself to be handled. It is said that bird-catchers in India take these Sandgrouse by approaching them under cover of leaves and dropping a net suspended at the end of a bamboo. Having seen the birds themselves I can readily imagine the possibility of such a method of capture.

To make up for their uninteresting habits, it must be conceded however that the Indian Painted Sandgrouse have most exquisitely marked plumage, the markings on the cock especially being most striking. Even in rough grass they are very difficult to see at a short distance, but our English grass is too green to hide them perfectly. I should imagine that in their native haunts they will form a perfect example of obliterative coloration. I am told they frequent broken ground in ravines, and that seldom more than three are found together.

Whether or not they will endure the severities of English winters without artificial heat remains to be seen. I sincerely hope they will and that I may be able to report as to nesting operations next year.

## CORRESPONDENCE, NOTES, ETC.

## MOUNTAIN CHAT LAYING EGGS IN CAPTIVITY.

SIR,—My widowed hen of the S. African Mountain Chat (*Saxicola monticola*) began to drop eggs about its cage a week ago. One egg which fortunately was only dented just where one would naturally drill it I have been able to blow successfully : it is not at all like eggs of our European Wheatear, being far more like a small egg of our Blackbird, pale sea-green mottled, densely at the larger end, with dull sienna or clay-brown. In size and ground-tint it resembles the egg of *Actinodura egertoni* (Catalogue of Birds' Eggs in the British Museum, vol. iv., pl. I, fig. 12), but in mottling it much more closely resembles *Turdus pilaris*, pl. viii., fig. 19. This egg was dropped on June 12th.

A. G. BUTLER.

RE QUEEN ALEXANDRA PARRAKEETS AND  
J. D. HAMLYN'S PUBLISHED STATEMENT.

SIR,—As J. D. Hamlyn has taken upon himself, without my foreknowledge, to publish a printed statement with regard to my purchasing some Queen Alexandra Parrakeets from him, I shall be most grateful to you if you could find space for the following facts.

On the 19th March, 1910, I received the following (written by Mrs. Hamlyn, who I should like to say has always shown me courtesy):

“SIR,—In reply to your favour *re* Queen Alexandras, Mr. Foglia has written Mr. Hamlyn asking him to meet him on arrival, and take charge of the stock.

“You can reckon on having the two pairs of birds for £40, provided you will send us a cheque for above sum. . . . It is of course quite understood that the birds are to be *free from blemish*. . . . If they do not arrive, your cheque is returned same day steamer docks. . . . You need have no fear whatever but what I shall act honestly.”

On the 23rd of March, I received the following from J. D. Hamlyn:

“SIR,—My wife is away. . . . The cheque for £40 arrived, for which accept our united thanks. This will enable us to plunge on Foglia's consignment, with, I trust some benefit to ourselves.” . .

When I was in Italy some weeks later, I received a letter to say that only three birds had arrived (I was promised two true pairs) but that if I kept them, Hamlyn must keep the £40 I had already paid for *four*! or he would accept other offers. N.B. Offers for goods which were no one's property but mine! I naturally remonstrated, but as I was not in England, and very much wanted the birds, I gave in.

On my return, not long after, I found one of the three birds minus tail and flight feathers, (it had arrived in that condition) and looking very

ill. In spite of having been kept in a conservatory and well cared for, it soon died. When I wrote to announce the fact I received no answer at all!

I think that most members of the Society will be struck with these points:

- (i) Why I should have had to pay £40 for three birds, when I held a written agreement promising me two true pairs "free from blemish" for that sum.
- (ii) That the birds were most certainly mine, and that there was no question about larger offers afterwards.
- (iii) That as J. D. Hamlyn took over the other stock at the same time from the importer of the parrakeets, the sum of £5 seems a very exorbitant one for him to have paid for the expenses connected only with three birds of that size between London and Plymouth!!!
- (iv) That, in *any* case, he gained a clear £5 on the transaction.

I might add, that after this, one would have thought that anyone who had failed in supplying me with the full number of birds which I had paid for, and paid for generously, would be glad to think that I had had an opportunity later on of, in a way, making up the loss by securing some more Queen Alexandra Parrakeets, for which I paid £7 a *pair* (!!); instead of which this dealer in birds was extremely annoyed at my doing so, although it was no business of his whatever.

A short time ago another English dealer sent me a pair of birds as a debt. The female was dead in the box, the body (a mere skeleton) smelt so high that it had to be hastily cremated, and the eyes were completely sunk in, yet the birds had only been a few hours on the journey and were met at the station on arrival!

On my remonstrating, I received a *post-card*:

"SIR,—Well I don't see any good or (*sic*) continuing this affair, you may think as you choose I shall do the same [here follows a word which is *supposed* to be 'insinuations'!] "as not facts."

I was offered two single birds which I didn't in the least want, as a compromise.

It is really time that an Association should be formed for obtaining birds from foreign lands by some other means. Mr. Goodfellow has shown us that birds *can* be landed looking as if they had only just been caught, yet they are often received so full of deadly disease owing to the filthy state of the cages they have been in, that one marvels why one ever runs any more risks.

HUBERT D. ASTLEY.

[Mr. Hamlyn's letter, referred to above, was printed on the last page of his July advertisement, which was circulated with the last number of this Magazine.

We think Mr. Astley's hint as to some other means being taken to import rare birds privately, might possibly, if a feasible scheme could be



thought out, be of considerable advantage, both to the study of aviculture and also to the birds themselves, which are frequently imported—as Mr. Astley points out—under most insanitary conditions. We should be pleased to publish the views of members on this subject.—ED.]

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## THE SOCIETY'S MEDAL.

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Mr. W. E. Teschemaker has a claim to a Medal for breeding the SULPHURY SEEDEATER (*Serinus sulphuratus*), as detailed in his paper..

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### RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr ARTHUR GILL, Lanherne, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case, *and a fee of 1/- for each bird.* If a reply by post is required a fee of 2/6 must be enclosed. Domestic poultry, pigeons and Canaries can only be reported on by post.

---

YELLOW BUDGERIGAR. (Mr. H. Thomas). The bird died as a result of injury to the skull. The movements you mention were the result of pressure on the brain caused by extravasated blood.

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NOTICES TO MEMBERS—(Continued from page ii. of cover).

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# AVICULTURAL MAGAZINE.

Edited by J. LEWIS BONHOTE.



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NOTE.—A new volume commences every November.

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COCK OF THE ROCK.

*Rupicola crocea.*

(From living examples in the Zoological Gardens.)



# Avicultural Magazine,

BEING THE JOURNAL OF THE  
AVICULTURAL SOCIETY.

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SEPTEMBER, 1910.

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## THE COCK OF THE ROCK.

*Rupicola crocea.*

By W. FROST.

The new year of 1910 found me in Georgetown, Demarara, B.G., enquiring for Cocks of the Rock. The general opinion among the colonists, however, appeared to be, that I might ask "until the cows came home," and then I might not get them. Evidently there was nothing for it, but to hunt them up myself.

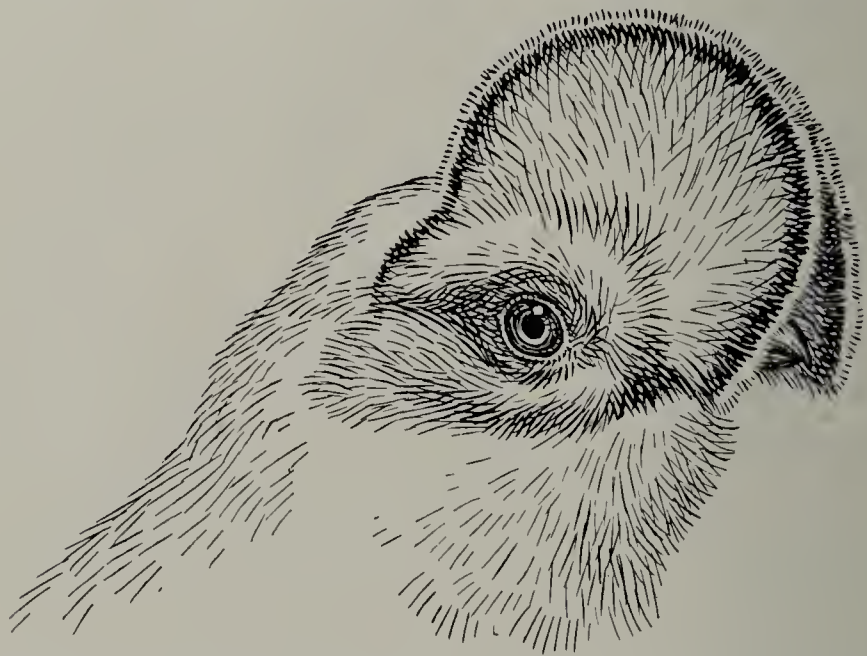
I reckoned that by following up the old route, used by the Savannah tribes, who used occasionally to bring the birds down for sale, in the old sugar days of the Colony, I should stand a good chance of locating the district from whence they obtained theirs. This meant taking the Mazuruni River as far as the Curipoung, then over the trail, leading across the Merume range south towards Roraima. The Northern slopes of the Merume proved to be the place.

Travelling up Guiana river is about the stiffest kind of moving job I have ever struck. It is apt to remind one of the fool's advice to "take a cab and walk"; only there, one hire's a boat and carries it (most of the way anyhow).

Towards the end of the month we reached Sevanamo, and there engaged a crew of Ackawai Indians. According to them, 'Cowenaros,' *i.e.* Cocks of the Rock, were never seen North of the Mazuruni, but there were still a fair number between that river and the Blue Mountains, (*i.e.* Merume), so, acting on their advice, I started up the Aping and Perinoung creeks. There are no falls here, but the stream runs like a millrace. Paddles were useless, the boys having to haul the canoes along by the over-

hanging branches, and lianes, "Monkey jumping," as they term it; every other pull bringing down showers of venomous ants, with an odd centipede or so as a treat. Two days of this, with another two through the bush, brought us to an Indian camp, within ten or twelve miles of the range. Here we were held up for about a fortnight, awaiting a chance to cross the flooded valleys, laying close in under the hills.

During this wait, I visited some twenty or thirty 'dancing' places, made and used by the birds during the last two months. In every case, I found it to be a small, level, bare-swept space of from two-and-a-half to three feet across, invariably under the feeding trees and, in most cases, within a short distance of running water. I saw no birds, however, and, according to the Indians, they had all shifted to the higher grounds to breed.



HEAD OF MALE SHOWING DOUBLE FORM OF CREST.

On February 10th a strange Indian (Macusi) came into camp from across the range, and reported passing a nest containing eggs. Four days later we got across, and the day after I hunted up the nest. It was stuck to the face of a large overhanging boulder, fourteen feet up, on a small, sharply sloping ledge. The hen sat very close, whilst being watched from below, only shifting at the approach of a pole, which we propped against the boulder to use as a ladder. On close inspection the nest appeared to be built of fibrous material, probably from a palm, worked up with some gelatinous substance, and plastered on the



outside with dried lichen or moss; in shape, forming about two thirds of a circle. It contained two eggs, roughly about the size of a pigeon's, dirty white, with large, rusty coloured blotches at the larger end. These hatched March 5th and 7th respectively. Three days later, owing to the carelessness of the boy on guard, a Tiger cat cleared the lot. Marks of old nests of previous seasons were very numerous on the boulders scattered along the slopes.

Perhaps I had better explain that these boulders vary in size from that of a small cottage to, say, that of the Albert Hall. The whole formation of the range indeed reminds one of nothing so much as a gigantic stone wall, from which the top courses have been dislodged, forming a heap of debris all along the foot, over and under and through which one has to struggle like a stray ant, until one comes to the wall itself, running up sheer some hundreds of feet. Over all is the thick, dark, tangle of bush, the sort of trail that even the Indians shirk, although swarming with game.

Near the top of the slope, close up under the wall, we found more 'dancing' places; here, however, they were necessarily on a stiff incline. I found the birds danced fairly regularly every morning between eight and ten a.m. The Indians say they never dance later in the day, but I have caught birds as late as four p.m. on the grounds, though I ought to add they did not get a chance to start a game.

During the time I remained on the range, I watched perhaps some thirty to forty dances. They were always started by an old cock who, taking up a position on a horizontal or slightly sloping branch, a fallen one preferably, at a height of from three to four feet, would start squawking out a challenge to his companions feeding overhead. Presently he would start jumping back and forth from his perch to the ground, giving a quick swirl with open wings and tail, as he struck the ground and turned to regain the branch. One after another the other cocks would drop down and sit around watching. Then one or another would join in, sitting opposite the first and taking turn in the jumps, squawking the usual challenge. The excitement spreading, the rest would gradually fall into place, until with seven or eight

birds flashing up and down, faster and faster, it began to look something like a dance. I cannot say that I ever saw a hen anywhere near during a dance, though, of course, they may have been watching the game from overhead in the thick foliage. All the dark birds I ever caught on the dance grounds turned out to be immature males.

Although the birds sometimes stick to one dance spot for weeks, yet, if disturbed too much, they quickly start another. One morning the birds seemed a bit late in turning up, but about 8.30 I heard the usual row going on a little higher up the slope. On creeping round I found they had started another ring; probably they had begun to take notice of the unaccountable number of "accidents" at the old show. I noticed here that the fresh spot, after only a few minutes use, could hardly be distinguished from one that had been in use for perhaps a couple of weeks, so that the usual idea of a dancing place as being trodden down hard and smooth by continual use won't hold. The ground is actually swept bare of leaves, twigs, and the top soil, scratched up by their strong claws in getting a throw off, and by the vigorous flirt of the wings and tail, as the birds strike and turn, until the layer of hard-packed white sand beneath is exposed.

The Indians have two methods of capturing Cocks of the Rocks alive: one by shooting, with blowpipe and poisoned arrows, afterwards administering an antidote, which, in the majority of cases, fails to work; the other by trapping with fine string noose and spring,—this method is very apt to break or dislocate the limbs, however. I barred them both and stuck to my nets; these proved a source of unfailing interest to the Bucks. To see me scoop up seventeen Trumpeters out of a small flock of two or three dozen fairly flabbergasted them. The old chief once asked to be allowed to try one on his own. This I did not care to risk, but I fixed him a large net one morning for a Maamo (Tinamou) that was feeding near, and giving him full instructions how to use it and how to flush the bird at the proper time, I left him to it and took up a position about thirty yards off.

For about half-an-hour old Harry sat there, whistling the Maamo call fit to blow his teeth out, and staring till his eyes



watered, in a vain attempt to keep the net plainly in view. Suddenly the bird answered, and immediately after showed itself about the middle of the net, but on the far side. The old man, however, had long ago lost its exact position and, sighting the bird, made a desperate rush. His wild yell of astonishment and rage when he struck and found he had only caught himself and lost his dinner was jolly funny. Afterwards he told me I was welcome to my spider traps, for his part he'd hunt his meat like a sportsman.

When caught, Cocks of the Rock are by no means certain livers, for the first forty-eight hours at any rate. Some will sulk, and in that case nothing one can do or offer will tempt him to live in captivity. Others again will feed readily on berries and chopped banana as soon as caged. One old bird, indeed, that I had just taken from the net, and was holding in a small open-work basket in one hand, while resetting the net with the other, actually took the end of a cigarette from between my fingers, but finding that unpalatable, started to finish up the food a previous sulky occupant had left.

Insectivorous mixture I found they despised; live meal-worms and other insects they were, on the whole, very indifferent to. Any and every berry procurable, ripe or unripe, they were always eager for, and next to berries, preferred paw paw, mangoes, bananas, or boiled pumpkin. Some even grew to be very fond of boiled rice sweetened with condensed milk, more especially if coloured by the addition of a little dark jam such as Blackberry or Blackcurrant. I found them always very keen on a bath, the sight of a syringe would set them all shuffling madly in their eagerness for a "cooler."

Although they travel about and feed in small flocks of one to two dozen birds, apparently quite amicably, even in breeding time, yet I found them all terribly vicious toward each other when caged. Even the youngsters in brown plumage always had a daily rough and tumble over the food tins, so that at last I was obliged to cage each bird separately,—a great drawback in a country where carriers are scarce and roads or paths non-existent.

From what I saw of the Cocks of the Rock, I do not think they are any scarcer now, or yet likely to be, than they ever were



in British Guiana. There is no trade in the skins now. Bucks rarely use them for their dancing costumes, generally preferring those of the various Toucans, with long strings of Yellow-winged Sugar Bird skins. Neither is there any certain sale for living specimens in Georgetown or Bartica, the birds rarely surviving more than a few weeks, owing partly to the change of temperature, but more I suspect to their owners' ignorance of their habits and requirements.

I heard of their being seen on most of the Sandstone ranges of the Interior, so that one can hardly call *Rupicola crocea* a scarce species, rather, one might term it inaccessible. The B. G. interior has well earned the title of the white man's grave, moreover, to my knowledge one is apt to bundle into it mighty unceremoniously.

I might mention that Mr. Goodchild has given, in the accompanying plate, an exact picture of the bird, as I first caught sight of it, though, from his alert attitude, I take it he had been long aware of my presence.

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## FURTHER BREEDING OF THE PIED ROCK-THRUSH.

*Monticola saxatilis.*

By REGINALD PHILLIPPS.

[For previous article see *Avic. Mag.* 2<sup>nd</sup> Series, VII., 279].

Some of our members are interested in this species; I will, therefore, say a few words more about the pair which I brought under notice in August and September of last year.

A change has come over the female since I last wrote. Instead of being a second-rate bird, this winter and spring she has been a magnificent specimen, trim and tight, a superb creature full of life and energy. One curious result of this improvement in her condition has been that she would not allow the male to approach the nest nor to feed the young, not even after they had left the nest:—from first to last she took sole and entire charge of them, and from first to last, whenever she had a moment to spare, she spent that moment in chasing her

mate. Did she remember how that, last year, he drove her from her children and displaced her in their affections, attempted to murder her, and, later, slaughtered one of the young birds, and would have slaughtered the other had it not found a friendly asylum at the Zoo.!

This year I did not permit the Rock-Thrushes to have possession of the reserved aviary, but kept them in the general aviary close to the house. I was enabled consequently to watch them better; and the fledgelings, being brought up in the open, became accustomed to our presence and delightfully tame. Moreover, they were saved from the deleterious effects of the great damp occasioned by the heavy rains; this summer, as last, the reserved aviary with its luxuriant foliage has not been the place for such a species as the Pied Rock-Thrush.

This spring the female, expecting daily to be loosed into the aviary in which she bred last year, was a long time settling down to business; moreover, she was much perturbed by the presence of workmen about the house. Three several nests she built; in the first she laid one egg; there was not anything in the second; in the third, which was absolutely and completely out of sight, she laid three eggs and thus made up the clutch of four.

During the whole of the first day of the building of *each* nest, and on the first day only, she carried up mud, wet dirt, and muddy rubbish. I think this is new:—I am under the impression—perhaps wrongly—that it is supposed that this species does not use mud in the construction of its nest. After the young had flown, I found a good deal of dried mud in the bottom of the box which had contained the nest, mostly in the form of balls; but everything had become so dry, and I had such difficulty in getting at the place, that I cannot say more than that the mud seemed to have been used for the purpose of filling up the corners of the box in order to make the bottom more saucer-shaped. The first nest was much the same; the second is occupied by other birds and has not been examined.

The female commenced to sit on June 1; and the young commenced to hatch out on the morning of the 15th.

Early on the 29th, a dead nestling was carried from the

nest by the mother. For its age, it was a perfect specimen; it seems to have been killed by a poisoned insect—one of the many dangers to our birds to which we poor Londoners are liable. All during the morning the mother was frantic, and dashed about the place like some mad creature. I picked up a female Beautiful Grassfinch (*P. mirabilis*), which presumably had chanced to get in her way; it had received one dagger-like stab—one was enough—in the lower neck: no bill in the aviary but that of the frensied Thrush could have inflicted such a wound. I could not blame her, though I grieved sorely for the poor inoffensive victim. She did not steady down and resume the regular feeding of the survivors until quite midday.

On the evening of the same day, the 29th, the two survivors left the nest together. Last year the young remained in the nest some two or three days longer, probably because they had plenty of elbow-room; this year the nest was in a small box wherein only two nestlings may have been somewhat crowded; moreover the position was not nearly so satisfactory as that of last year.

For some days the fledgelings hid about in holes and crannies on or near the ground, and often were difficult to find; and, even now, the peculiar unassertive mottled light-gray aspect of the general plumage, notwithstanding the darker wings and dull-rufous latter end, harmonises so well with their surroundings—whether bricks or mortar, wood or ground—as to render them inconspicuous even when not in hiding and quite invisible to the casual passer-by. For the first few days, if not hidden away when any one approached (and they could see no reason why they should hide from me), the mother would dash at and peck them, and endeavour to force them into some nook or corner. When not flying about, they still instinctively retreat into shady places, almost invariably near to the ground. Towards nightfall, however, they mount to the highest perches, and for a while persisted in going to roost in the open where they were fully exposed to the rain; and from time to time I had to come to their rescue and stow them away under shelter until the morning. They like to pass the night in some particular spot, so I have got over this trouble by putting a cover above each



favoured sleeping-place. They never roost near to one another nor to their parents; but the mother always waits in attendance upon them until they have finally settled down.

The fledgelings did not hurry themselves o'ermuch in learning to obtain their own food, and seemed disposed to take things easily; but the old mother is not one to put up with any Cuckoo nonsense. Commencing early on July 9, and from that day onwards, she ceased to carry food to them but has required them to follow her about to the several food-dishes. She seemed to put them through a regular course of training in the art of providing for themselves; and certainly they have done credit to her teaching.

I referred, last year, to the tameness of this female. When in want of food for her young, not only did she follow me everywhere, watching my every movement, in the hopes that I should find an insect, but she dashed about me, pecked my hands, beat me with her wings, dodged about between my feet, so that I had to exercise the greatest care lest I should injure her. She likewise followed and inspected the movements of the bird-woman, with a like purpose. She reminded me of a Magpie I once had, who used to accompany me when gardening, and who, terrier-like, was ready to dart upon any unlucky earwig, centipede, or other creature that I might start—even a Magpie is not all 'black' you see!

Last September (pp. 312, 3) I hinted that this female had occasionally been wanting in amiability in her intercourse with little birds. Very shortly afterwards I found that, like Mr. Meade-Waldo's Rock-Thrush (VI., 189), she also is keen after small mice, catching and killing them eagerly and boldly. Now it so chanced that one evening, soon after the youngsters had left the nest, as I was carrying them into the birdroom out of the rain, I brushed against a little branch upon which, cuddling together in a row, were sleeping four baby Blue-breasted Waxbills, and upset them all, one of them fluttering under a 'house' which is raised about a foot above the floor. Whether the Thrush thought it was a mouse or one of her own little ones I do not know, probably the former, for she immediately flew to the spot with a look of expectancy on her face which meant mischief;

and I endeavoured to drive her away with my handkerchief. She turned upon me and, at the third flip, bounded on to the food-table close by, with wings outspread and every feather bristling, and in a hurricane of fury dared me to mortal combat. I have never before seen a bird in such a towering rage.

Both of the parents fell into moult, as usual, at the beginning of July, no suggestion being offered towards the rearing of a second brood; but the mother still keeps a watchful superintendence over the young, and carries to them every tit-bit she can obtain.

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## ERLANGER'S SCOPS OWL.

*Scops erlangeri.*

By R. B. WOOSNAM.

I caught this little Owl in rather a curious way. Late one evening on the banks of the Tamalakan river (Ngamiland), I saw two small Owls sitting together in a big kameel thorn tree. I could see they were Erlanger's Scops, and as I wanted specimens of this Owl for the collection, I stalked them and bagged both with a single shot. When I went to pick them up I found they were quite young birds with still a few traces of down showing. One was quite dead but the other was very much alive and on examination proved to have no bones broken and only three slight wounds from dust shot so I decided to try and keep it alive. I had a small wicker cage made for it and, although it was most ferocious at first, it soon got to know my whistle and later even my voice, and I never had the least trouble about feeding it, and it would come and take its bird or mouse out of my hand. I always made it pluck and tear up its food for itself as in this way it got a considerable amount of valuable exercise and afforded us much amusement. It always began by swallowing the bird's head whole, and the remainder in lumps, feathers and all, except the wing and tail feathers, standing on the bird and tearing it to pieces with the most evil look on its face. It had the most extraordinary range of facial expressions I have ever seen, some fierce, others so ridiculous that no one could resist laughing. When let loose in a room it would quietly look round till it



Photo by W. S. Berridge, F.Z.S.

ERLANGER'S SCOPS OWL.

*Scops erlangeri.*





made out the highest possible perch it could get, and nothing would satisfy it till it got there, then from this point it would examine carefully everything in the room, bowing up and down and turning its head around without moving its body in the most incredible way. Nothing escaped its keen eyes, even a tiny black ant moving on the wall at the other side of the room would attract its attention. If a cat or dog came into the room and it was well out of reach, it would glare at them and swear occasionally in a low voice, but if it was perched low down, say on a chair, it would puff itself up to three times its normal size, lower its head and spread out its wings like a fan, swear and snap its beak and dilate its glorious eyes till they seemed ready to burst out of its head, if it was put on the floor then, it would actually attack a cat, striking at it with its claws like a Game cock. I often used to take it out of its cage in the day time and put it out to sit in a tree (it had of course the primaries of one wing cut) and it was wonderful to see how it would try to make itself inconspicuous especially when any animal passed near it. It used then to stand bolt upright and make itself so small and thin that it looked scarcely thicker than a candle, at the same time closing its eyes till only the narrowest slits were visible and raising its horns straight up over its head like two thin spikes. It always assumed this attitude if I went to speak to it when it was in a tree, and bobbed up and down, tittering and chattering at me (a sign of friendship) and screwing up its face with one eye half open in the most ludicrous manner possible. Curiously enough it always behaved in this way if any birds came to mob it, and never became angry.

It is impossible to describe all its amusing little ways and doings, it was one of the most interesting and charming pets I have ever had. It travelled with us in the waggon many hundreds of miles, and once when crossing a river, which was unexpectedly deep for a short distance, it was completely submerged for about a minute and I shall never forget its expression when it came out.

I always fed it once a day, in the evening, when it had either a freshly killed bird or a mouse, of which it eat as much as it wanted, it would eat a bird the size of a Sparrow every

night. It was very particular about its meals and if there was any noise or movement going on near it, would not touch its bird nor eat anything.

It generally eat its food at once, but sometimes it would keep it all night and eat it just at dawn. Besides small birds and mammals, they feed upon large insects such as beetles, moths and big grasshoppers, these latter it often caught for itself when I let it out in a tree. I believe that the formation and casting of pellets is absolutely essential to these small Owls, if not to all Owls, if they are to remain in perfect health, and if they are fed upon butchers' meat it is only a matter of a short time before they die. I took some traps on board ship and managed to catch rats for them fairly often. A days' complete fast now and then is most beneficial to all carnivorous animals in confinement.

I brought home, also, two S. African Barn Owls (*Strix flammea*) but I failed absolutely to tame them in the slightest, and, although I had them in down, they became more morose and savage every day.

Erlanger Scops Owl frequents the forested parts of S. Africa, I believe only in the neighbourhood of water. I have never been able to identify its note for certain, but I believe it is a rather loud single whistle or hoot with a trill in it. It is plentiful on the Molopo river, in the Kameel thorn forest and in Ngamiland along the numerous branches of the Okovango, but we did not see it or hear what I think to be its note in the waterless parts of the Kalahari desert. There seem always to be a pair of these Owls together, and they are only partially nocturnal.

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## NOTES ON MY VISIT TO AUSTRALIA.

By DAVID SETH-SMITH, F.Z.S., M.B.O.U.

*(Continued from page 207.)*

### WE SAIL FOR HOME.

On April the 11th, 1908, we set sail from Sydney, on our eight weeks voyage for home with a large stock of animals, in the good ship "Persic," of the White Star Line.

Besides the New South Wales animals, we had a large number from Queensland, which Mr. Beard of Brisbane had got together for me. The beautiful Parry's or Pretty-face Wallaby, now only found in Queensland, and always rare in collections, was represented by five specimens, and the most delightful, though highly unsatisfactory Koala or native Bear was represented by two specimens. These latter were the tamest little creatures imaginable, and before we sailed, each morning came for a walk round the Sydney Zoo on my shoulders. They would make ideal "Teddy" Bears if only they were easy to keep.

We had Wallabies and Kangaroos of many species; Dasyures, or Native Cats of two species, Wombats, Marsupial Mice, Rat-Kangaroos, Opossums, Dingoes, Snakes and Lizards to the number of over a hundred, and some thirteen or fourteen specimens of the Echidna, the curious egg-laying porcupine, whose nearest relation in Australia is the Platypus.

Of birds we had a large number. Cages full of Honey-eaters of several species, Magpie Larks, Coach-whip birds, Blue-Wrens, Yellow-breasted and Dusky Robins, Black-and-white Fantails, several species of Parrakeets, Wedge-Tailed Eagles, a Funereal and a Banksian Cockatoo, Rajah Sheldrakes, Herons, Ibises, Cranes, Pelicans, etc.

There were two large sheds on the fore deck of the ship, which, on the outward voyage, are generally used for cattle and horses. These I appropriated, and had a third and larger one specially constructed, and in these we housed most of our stock, while the larger animals stood out on deck in their boxes.

Two days after sailing we reached Melbourne, where we had three or four days to wait. Here Mr. D. Le Souëf had another large stock of animals awaiting me. I took also a

quantity of Honey-eaters and other small birds which Miss Bowie and Mr. Newell had kindly got for me. Shelley, a keeper from the London Zoo, had been in charge of the stock at Sydney, and here at Melbourne we picked up Vinall, who had also come out from home, and to whom I had entrusted the special care of the Victorian stock as it accumulated in the Melbourne Zoo.

#### HOBART.

During the apple season in Tasmania, all the large steamers leaving Australia for Europe call at Hobart for a cargo of apples ; and as I hoped, through the kindness of my friend Mrs. Roberts, to secure a nice collection of Tasmanian animals, this fact was very fortunate for me.

When I awoke early in the morning of April the 18th, we were already anchored about half-a-mile from shore in the still waters of Hobart Harbour. It was a perfect autumn morning, the atmosphere crisp and bright, and from my porthole I viewed an exquisite picture of the pretty town nestling at the foot of snow-capped Mount Wellington. The fine old Orient ship "Omrah" lay at the quay, in the berth that our ship was to occupy when her rival should have taken her fill of the luscious cargo of fruit which Hobart, at this season, distributes to the World ; so our ship had to wait her pleasure. A steam launch soon came out to us and conveyed us to the shore, and I proceeded to " Beaumaris " to see Mrs. Roberts' interesting collection of Tasmanian birds and beasts.

Mr. and Mrs. Roberts received me very kindly, and I was at once taken to see the collection.

A number of Bennet's Wallabies occupied a large enclosure, and followed their owner about as tame as domestic rabbits. Some fine black Tasmanian Opossums or Phalangers and a number of Flying Phalangers were amongst Mrs. Roberts' pets. The birds, however, interested me most.

One large aviary was devoted to Parrakeets, and here one saw the Tasmanian Yellow-vented Parrakeet (*Platycercus flaviventris*), Rosellas, Yellow-rumps, Pennants, Redrumps and Cockatiels, and amongst them a New Zealand Kea Parrot, which appeared to agree quite well with its smaller companions.

In a small aviary I was delighted to see a number of Fire-

tailed Finches (*Zonæginthus bellus*) looking in the pink of condition, but doubly pleased was I when Mrs. Roberts most kindly presented me with eight of them. These little finches are common around Hobart, but appear to be very delicate when first caught. When once acclimatized, however, they are comparatively hardy, and of the eight examples given to me by Mrs. Roberts, one only died on the voyage home.

A very fine White-bellied Sea Eagle occupied an aviary with a Wedge-tailed Eagle, a beautiful White Goshawk, a Gould's Harrier and an Allied Harrier. Of waterfowl, I saw in Mrs. Roberts' garden for the first time the beautiful Chestnut-breasted Teal (*Nettion castaneum*), locally known as the King Teal, Cereopsis and Madned Geese or Wood Ducks as they are called there. There were Black-backed Porphyrios, and a single "Native Hen," or Mortier's Water-hen (*Tribonyx mortieri*) to give it its correct designation.

Mrs. Roberts most kindly allowed me to purchase, at a very reasonable figure, the largest part of her collection, and before we left Hobart my stock on the "Persic" was augmented by a nice lot of Tasmanian animals, which I need hardly say I should have been quite unable to obtain had it not been for Mrs. Roberts most kind help.

At "Beaumaris" I was fortunate in meeting Miss Fletcher, a keen naturalist, (whose contributions to the *Emu* on Tasmanian ornithology are well known and appreciated by Australian ornithologists), and her sister; Mr. and Mrs. A. L. Butler, the former an excellent ornithologist, and Mr. Robert Hall, the Curator of the Hobart Museum, and one of the foremost of Australian naturalists. The meeting was very pleasant and I learnt much Tasmanian natural history.

Although I had secured from the Melbourne Zoo a pair of that extraordinary carnivorous marsupial, the Tasmanian Devil, I was very anxious to obtain other specimens. Mrs. Roberts had been doing her best to secure some for me, but on my arrival at Hobart no word of any had come to hand. I had nearly given up hope when a telegram arrived stating "three Devils sent on by rail." This was on Saturday night and Monday was Easter Bank Holiday.



No news of the animals came to hand on the Sunday, but on Monday (Bank Holiday) morning Mr. Butler telephoned to the Station-master—"Have you got any Devils at your station?" "I don't know about Devils," replied the official, "but we have some very ugly looking animals in a box." We promptly chartered a conveyance and proceeded to the railway station. We searched high and low amongst cases containing every variety of merchandise, but no sign did we find of the Devils. Being Bank Holiday everybody connected with the station appeared to have gone holiday-making. At length we discovered a sleepy-looking porter who said he believed that the carrier, whose duty it was to deliver them, had taken them to his own house, until he should have finished his holiday-making and feel disposed to deliver them. We proceeded to the carrier's house, which was securely locked up for the day. The back yard contained some half-dozen dogs and a shed which looked as though it might contain our quarry. The dogs seemed to welcome our intrusion over the top of a six-foot fence, and did not in the least object to our forcing the door of the shed. Here we found two suspicious-looking boxes, through the crevices of the boarding of which we beheld the ugly faces of our prizes. They were promptly transferred to our conveyance, and we drove back well satisfied.

*(To be concluded).*

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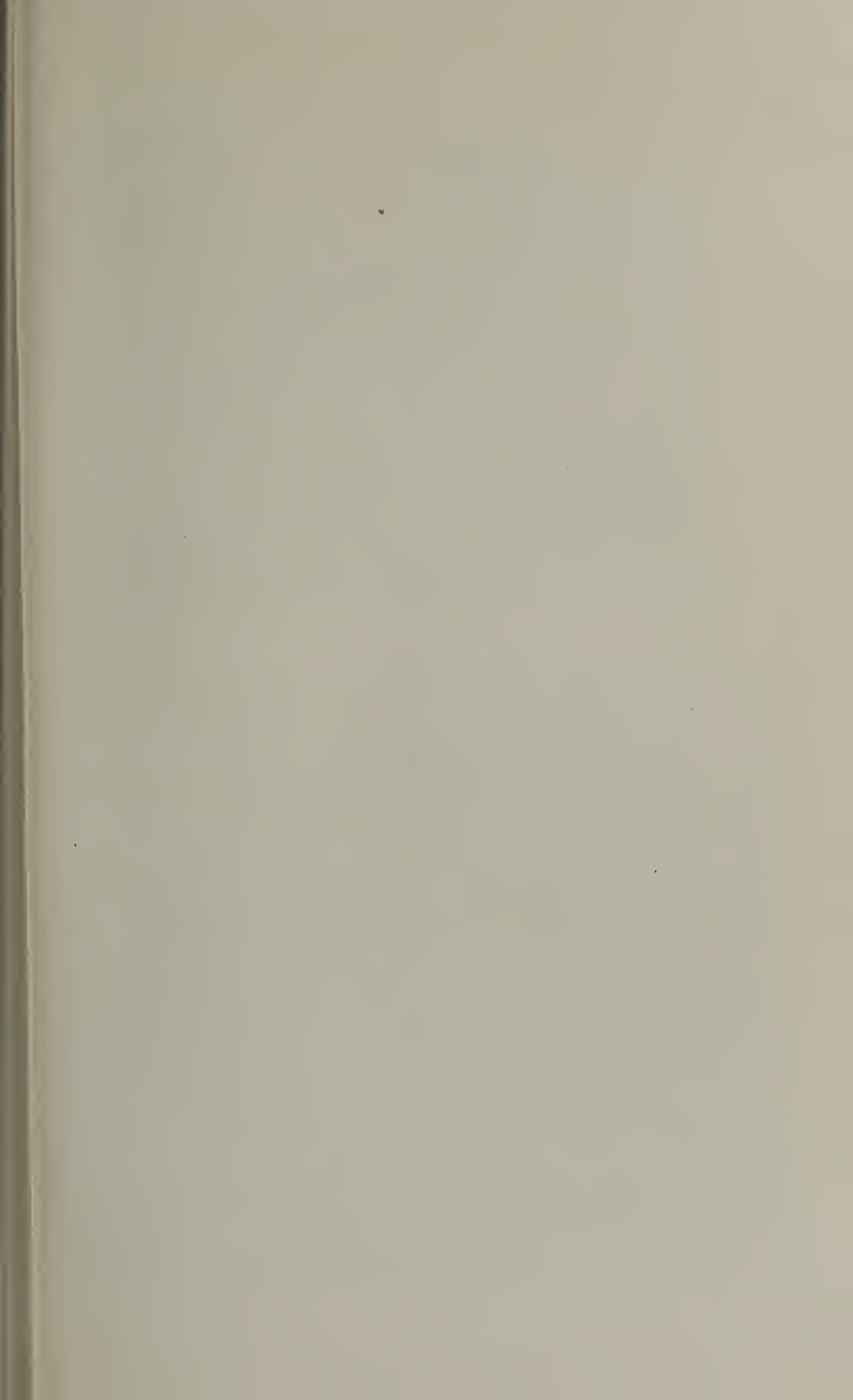
## BIRD NOTES FROM THE ZOOLOGICAL GARDENS.

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The season now rapidly drawing to a close has been a fairly good one on the whole for breeding; though, of course, many things have not bred that should have done so.

Early in the year I had the incubators put into order in view of Pheasant rearing; our breeding stock was distinctly poor, but I thought it advisable to rear what one could from the available stock.

I foresaw a difficulty in securing trusty broody hens for rearing the chicks at the right time, so determined to have a Hearson's "Champion" fostermother in readiness and to try







Photos by W. S. Berridge, F.Z.S

THE HAMMERHEAD (*Scopus umbretta*) AND NEST.  
From the Gardens of the Zoological Society.



rearing in this. I was told that these machines were excellent for chicken rearing, but that for pheasants they would be a failure. However, we have reared about ninety pheasants with complete success; the species reared being Mongolians, Gold, Silver, Amherst, Peacock (*Polyplectron*), Elliot's, Prince of Wales' Kaleege, and a Tragopan, as well as a Globose Curassou and a hybrid Peafowl (*Pavo nigripennis*  $\times$  *P. muticus*).

Waterfowl have done fairly well. Of Sheldrakes we have bred three species: the Variegated or Paradise Duck, six hatched and reared; Ruddy, nine hatched and reared; Common, two hatched and one reared. Of Wigeon we have reared six, Shovel-bills four, Chestnut-breasted Teal, five; Australian Wild Duck, four; hybrid Yellow-billed and Dusky Ducks, ten; hybrid Yellow-bill and Meller's Duck, six, and one young Snow Goose. Then there are three young Andaman Teal, two young Maned Geese, seven young Tufted Ducks and seven young Muscovies—all doing well.

A pair of Black-tailed Waterhens (*Nicrotribonyx ventralis*) have three chicks about six weeks old, and a pair of Wattled Peewits have hatched three young, which are doing very well. I do not know of a previous case of these latter being bred in captivity. A Bantam hen has charge of a rapidly-growing chick of the Black-backed Australian Porphyrio. We are rather proud of having reared a young Hammerhead or Tufted Umbrell (*Scopus umbretta*). The enormous nest was built last year, but then no eggs were laid to our knowledge. This year they took to the nest again, and on the first of August a young bird, differing only from its parents in possessing a pale yellow iris in contrast to the dark brown iris of the adults, left the nest and at once fed itself and was forthwith ignored by its parents, who are paying great attention to the nest again.

In the Seagulls' aviary not much has happened. A pair of White Storks made a nest, laid four eggs and sat the full time, but the eggs were clear. Black-backed and Herring Gulls have reared young.

The stacks of cages in the centre of the Small Bird House have been removed, and their place taken by large open ornamental aviaries which are stocked with various Tanagers, Finches,

Waxbills, &c. The house now has less of the appearance of a bird-dealer's shop than formerly.

Among the recent additions we may note a fine example of the Ruby-throated Bulbul (*Rubigula dispar*), on which species Mr. Phillipps wrote an article in the Magazine a short time back,\* a Yellow Sparrow (*Passer flaveolus*) from Burma, which is but rarely imported; a valuable collection from South and Central America, brought back by Messrs. Albert and Hugo Pam, and including a Naked-eyed Pigeon (*Columba gymnophthalma*), two Condors (*S. gryphus*), and an Orinott Goose (*C. jubata*), and, lastly, a Hawk (*Cerchneis ardesiacus*) and a fine pair of Touracous (*Musophaga rossæ*), from Africa, brought back by Mr. L. M. Seth-Smith. In a forthcoming number it is hoped to figure the Touracous, which are, I believe, the first of their kind to be imported.

D. S-S.

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## REVIEWS.

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### † ROSSITEN.

‘Die Vozelwarte Rossiten’ is a small pamphlet, profusely illustrated with photographs, dealing with the German Bird Observatory in the Kurische Nehrung. The object of this observatory, which has now been established some three years, is largely for the study of migration, and is under the direction of Dr. Thieneman. Much work is done by the ringing of birds, and already some striking results have been achieved. Maps are given in the cases of the Hooded Crow and Black-headed Gull, showing in the former instance a marked westward trend after reaching the southern shores of the Baltic. In the case of the Black-headed Gulls which nest at Rossiten, their southward migration appears to follow three routes either (1) along the coast as far south as Bordeaux, or due south across Europe to the Adriatic

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\* *Avic. Mag.*, Ser. II., Vol. 7, pp. 215 and 236.

† DIE VOZELWARTE ROSSITEN, VON Dr. J. THIENEMAN, Svo. pp. 1-36 with 4 plates and 10 text figures. Berlin: PAUL, PAREY, S.W. Hedemann-strasse 10, 1910.

at Trieste, or southwards across Europe *via* the Rhine and the Rhone. At present it seems to us that the routes are defined too definitely for the number of birds recovered, and in some cases, e.g. on the Danube and Save routes are marked which do not seem to be substantiated by any *direct* evidence; however, as time goes on and more birds are recovered the results are bound to correct themselves. Some of the most striking results have been obtained from the ringing of Storks, several of which have been shot in South Africa, 5000-6000 miles from their birth-place. The investigation has further established that the young Storks return in the spring to within a radius of 50 miles (6-94 km) of where they were bred.

Many more years work will be necessary to confirm and deduct theories from these results, but they form sound incontrovertible facts on one of the most fascinating features of bird-life.

J. L. B.

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#### AMERICAN AVICULTURE.

Breeding operations appear to be conducted on a large scale in the New York Zoological Park. In No. 40 of the Zoological Society Bulletin it is stated that 300 Mallards were hatched between May 1 and June 20. This number contains three interesting articles contributed by Mr. Lee S. Crandall. The most important deals with the fine collection of Waterfowl belonging to Mr. T. A. Havemeyer, who has on his estate at Mahwah, New Jersey, about 300 birds, including seven species of swans, twenty-eight of geese, and eight of ducks. The grounds consist of over 3000 acres of broad, rolling lowlands; three enclosures, each with miniature lakes and an ample expanse of grazing grounds are provided for the birds. So far, nothing special has been achieved in the way of breeding, the only broods recorded being those of Canada, Egyptian, and Upland Geese, Wigeon and Mallard.

It is interesting to know that Mr. Havemeyer has secured a pair of Hawaiian Geese, which are better known on this side as Sandwich Island Geese. By that name the birds have been designated in the records of the Zoological Society for over eighty years, and it is indicated in the specific name *sandvicensis*.



In 1887 Mr. Scott Wilson expressed his apprehensions that the species would soon become extinct in a wild state. Mr. Crendall fears that this may be brought about "as the result of indiscriminate slaughter by Japanese immigrants." We certainly hope that the New York Zoological Society will draw the attention of the United States authorities to the matter and endeavour to secure a measure of protection for these birds. They bred freely at our Zoological Gardens, the Society's farm at Kingston, and at Knowsley; and Lord Stanley, afterwards the Earl of Derby, believed that, with a little care, they might be domesticated. Other rare species in the collection are the Maned Goose, which has bred at Gooilust and the Berlin Zoological Garden, Emperor, Ashy-headed, and Ruddy-headed Geese. In the Berlin Garden the Ashy-headed Goose (♂) has, in the last two successive years, produced hybrids with the Variegated Sheldrake, and the young in down plumage had the typical Sheldrake dress.

Although it is not stated that most of the rarer birds came from Gooilust, there seems to be little doubt that such is the case.\* This presumption ripens into certainty, when one reads that "It is planned to build this year a number of smaller paddocks in [each of] which a pair of birds may nest in peace." This arrangement is a special feature of Mr. Blaauw's method of keeping his waterfowl, and one of the chief factors of his success in breeding. Some of these successes have been recorded in our own pages, others in the *Ibis*, whence many have been quoted by Miss Rose Hubbard in her "Ornamental Waterfowl."

A shorter article deals with the moult of the Willow Grouse, and is interesting as recording observations on birds in captivity; it adds, however, little, if anything, to what was written by Mr. W. R. Ogilvie-Grant on the subject in the *Annals of Scottish Natural History* (1894, pp. 129-140) and included in the first volume of his "Game Birds." Although the account of the breeding of the *Cereopsis* Goose in the Zoological Park adds nothing to our knowledge of the habits of the species in captivity, it is of considerable importance as recording, as far as is

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\* See Mr. Blaauw's article "On the Breeding of some Birds at Gooilust" in this Magazine (N.S. VII. 36).

known, the first instance of successful reproduction in America. In this country *Cereopsis* Geese were first bred in the Royal Menagerie at Windsor. When that was broken up, on the death of George IV., eight birds came into the possession of the Zoological Society, and the fact of their breeding at Kingston Hill is recorded in the Farm Report published in 1832.

H.S.

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## CORRESPONDENCE, NOTES, ETC.

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### IMPORTATION OF FOREIGN BIRDS.

SIR,—Mr. Astley's plan for members to club together and send out their own Collector would be an excellent plan if it were feasible.

But would sufficient funds be collected for it?

Members want birds from many quarters of the globe. Say that our desires were all concentrated on S. America, or Australia, or New Guinea, money enough might be found.

If the leading purchasers would agree amongst themselves never to pay till the birds were delivered in sound condition, and observe the agreement, they would work a change.

F. G. DUTTON.

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SIR,—I think that Mr. Astley's suggestion that an Association for importing birds should be formed is most heartily to be supported, but I am afraid the difficulties in the way are many and great. Many of the dealers seem to look upon birds as mere instruments for money making, and treat them shamefully. It is difficult to understand why they go into the business if they have no love for birds. I had a good many birds sent over to me while I was in Ireland, and I found that I could not get most of the dealers to understand that due warning of time of despatch is necessary. They seem to think that a bird has no more feelings or wants than a brick, and that what happened to the unfortunate birds after leaving their shops was a matter of supreme indifference to them. I have spent much money in wiring with prepaid answers, and much time going down to the station to meet every mail train in the day, all for the want of a little courtesy and humanity on the part of the dealers. The general condition of dealers' birds on arrival is usually very bad indeed. They are almost invariably very ill, and take much time and trouble to bring round, and are consequently useless for breeding purposes for some time after one has acquired them.

J. W. SEPPINGS, Capt.

[We have omitted the latter portion of Capt. Seppings' letter, which told of a most unsatisfactory transaction with a well known dealer.—ED.]

## CROSSBILLS IN CAPTIVITY.

SIR,—As Crossbills have attracted so much notice lately, a few notes on one which has been a cage pet of ours since November 1905, may be of interest. He had been in the possession of a friend for over a year previously, so is certainly more than six years old, and is still in the best of health and plumage, the colouring of the latter being yellow-green throughout. He eats almost anything; ordinary seed, green peas in the pod, an ear of wheat or oats, elm-buds, as well as the seeds of the larch or Scotch fir; the green cones are especial favourites. His song, though not powerful, is very pleasant; and his movements, as he climbs about his cage, very interesting.

As soon as I enter the dining-room, where his cage hangs, he welcomes me with the sharp call of "jip, jip, jip," and if the process of cleaning his cage and feeding him is deferred till later than usual, he protests till his grievance is remedied. In hot weather he loves bathing, and drinks rather freely at all times.

I find it a good plan to replace the ordinary perches in a Crossbill's cage with fresh boughs of Scotch fir from which they like to nibble off the bark.

JULIAN G. TUCK.

## TREATMENT OF BIRDS OF PREY IN CONFINEMENT.

SIR,—I have read with much interest Mr. Bonhote paper on "Ages of Birds," and his remarks about Birds of Prey.

I have had some experience of these birds, and on the whole agree with what Mr. Bonhote says, but with ordinary care and good food carefully administered most raptorial birds thrive in confinement, and are amongst the longest livers.

There is no doubt but that they do extremely well in enclosed aviaries only open in front and facing to the South, but it is hard to give enough space to large birds. While the finest individuals I have ever seen have had large flights, I do not believe that the true Falcons and Goshawks can ever be kept in perfection with flights to their cages. My mentor in the keeping of Birds of Prey was the late Edward Fountaine, of Easton, Norwich. I saw his beautiful collection first in 1873. They were *all* in enclosed aviaries with open fronts facing the South; and I remember their faultless condition. He impressed me, however, with the necessity of water both for drinking and bathing, which practice I have kept to ever since. With few exceptions all are most regular drinkers and bathers. As all falconers know a hawk will not fly until she has been "Weathered," viz. drank, bathed, dried and plumed herself. If flown before having "Weathered" the first thing she does is to go on the "soar" to look for water, and when she has found it you may wait for her until *she* is ready!

Many birds will live without water. The unfortunate hens that are



used as foster mothers for Pheasants often live without it for ten weeks in a burning sun, and you are told that they are given moistened food once a day! But I do not recommend the treatment.

Some of the Falcons, viz. the Saker, has the reputation of never bathing. Owls of the genus *Strix* rarely bathe, neither do Owls of the genus *Athene*, but *Surnium (Bubo) Asio*, in fact all other Owls are great bathers.

E. G. B. MEADE-WALDO.

The following is a copy of a letter from myself which appeared in the *Field* for August 20th. :—

“Correspondence and Notes in the *Field* of August 6th and 13th, as well as a letter in the *Times* of the 8th, and in the *Daily Telegraph* of the 10th, must be my excuse for again reverting to this subject.

“It is perhaps only to be expected that the ordinary naturalist should imagine that the more roomy the cage the happier and better the bird is likely to be; to those, however, who have studied birds in captivity and whose object has always been to keep them, as far as may be, in the best of health (and I suppose it will not be denied that no bird unless in good health can be happy) the matter is a complex one.

Take for example a Kestrel, though these remarks would have equal force if applied to any other species, the roomiest aviary in the world will not induce this species to indulge in that flight which affords the field naturalists so much pleasure. And why? Because such a flight is only undertaken for the purpose of procuring food. If a very large aviary, such as let us say the Gulls' enclosure at the Zoological Gardens, could be devoted to two or three Kestrels, who would receive no dead food but would have to subsist merely on live sparrows and mice put in for the purpose, then probably the birds might indulge in aerial exercise. Such a scheme is, however, ridiculous and impossible, not to mention the cruelty involved to the sparrows and mice.

“The advocates of a large aviary may however argue that, even if the birds do not exercise, it is all on the right side to give them the opportunity. But is it? The birds take no exercise but sit on some perch in the outside portion of the aviary exposed to all the elements for there is probably but little shelter outside and they have a natural aversion to using a house. Gradually their plumage fades and wears, they get soaked with rain and in a few months or possibly a year they die.

“There is yet another difficulty; most birds of prey are overfed in confinement and this leads to sluggish livers and a still further disinclination to move; but if by chance they get suitably fed (a matter almost impossible of attainment in large Gardens where they cannot be treated individually) they will become restless a few hours before feeding time and in taking the flights, which a large aviary allows, they almost invariably injure either themselves or their plumage.

"If on the other hand they are kept in covered aviaries of a reasonable size and properly fed, they will merely hop from perch to perch when they become restless, and their plumage being protected from the weather will retain its natural colour and gloss until the moulting season comes round again, while being in perfect health and plumage they cannot fail to be happy and a delight to those that watch them.

"These are then my reasons for advocating small closed-in places for birds of prey in preference to large open flights. I have studied the matter as a practical Aviculturist for many years and the fact that no Kestrel has ever died in my aviaries under six years and eight months speaks for itself.

J. LEWIS BONHOTE."

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## OFFICERS FOR THE YEAR 1910-11.

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In accordance with Rule 9 the Council recommend that Messrs. E. G. B. Meade-Waldo, C. Castle Sloane, W. E. Teschemaker and Collingwood Ingram retire and that Messrs. T. H. Newman, W. L. Sclater, B. Thomasset and H. Wilford be elected in their place; also that Mr. Castle Sloane be appointed as Scrutineer, and Mr. Meade-Waldo as Auditor for the ensuing year.

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## POST MORTEM EXAMINATIONS.

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### RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr ARTHUR GILL, Lanherne, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case, *and a fee of 1/- for each bird.* If a reply by post is required a fee of 2/6 must be enclosed. Domestic poultry, pigeons and Canaries can only be reported on by post.

---

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Mrs. BONHOTE; 29, Bramham Gardens, S.W.

Dr. C. STERCKMANS; 28, Rue de la Station, Louvain, Belgium.

Mr. BERNARD HOLLINS; 9, George Street, Hull.

The Hon. Mrs. FEATHERSTONEHAUGH; The Mill House, Wimbledon Common, S.W.

Mons. PIERRE AMÉDÉE PICHOT; 132, Boulevard Haussmann, Paris.

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*Proposed by J. LEWIS BONHOTE.*

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*Proposed by Mr. R. I. POCKOCK.*

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PRETRE'S TANAGER.

*Spindalis pretrei.*



# Avicultural Magazine,

BEING THE JOURNAL OF THE  
AVICULTURAL SOCIETY.

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OCTOBER, 1910.

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## PRETRE'S TANAGER.

*Spindalis pretrei.*

By J. LEWIS BONHOTE.

The genus *Spindalis* consists of some eight species which are only found on the various islands in the West Indies and one species on Cozumel Island, off the coast of Mexico. They are all very similar in general coloration and differ chiefly in the greater or less intensity of the different portions of their plumage. The subjects of the accompanying plate were brought from Cuba and purchased by the Zoological Society, unfortunately the hen has since died and the male bird when I last saw him did not appear in very good health.

Like most West Indian Birds they are seldom imported, but in their own country (I am speaking more particularly of the Bahamas) they are frequently caught alive and seem to stand captivity very well. One which I had for some months lived entirely on fruit, readily taking any kind that was offered. In a wild state, however, they seem to prefer small berries and were always to be found round the fruit-bearing trees in the thick bush.

I was never able to locate a nest of this bird, nor have I been able to find any authentic description of one which, considering how common a bird it is, is somewhat curious. Gosse\* describes a nest, which was brought to him as the nest of the Cashew Bird (the local name for the representative of this genus in Jamaica), but its proper identification was by no means certain. It was composed of cotton, decayed leaves, epidermis of weeds and stalks and tendrils of the passion flower. This nest con-

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\* *Birds of Jamaica*, p. 234.



tained two eggs of a dirty white splashed at their larger end with dusky spots.

As mentioned above the differences between the various species, though well-marked and distinct, are not great. The form figured may be considered as a central point from which the other species have diverged. In *S. portoricensis*, from Porto Rico, the collar on the nape is yellower than *S. pretrei*, the rump is concolorous with the back, and the breast pale lemon-yellow with a small patch of reddish-orange on the lower throat.

*S. nigricephala*, from Jamaica, resembles *S. portoricensis* but the coloration is much more intense, and the black of the throat and head more defined and greater in extent. The collar on the nape is absent.

*S. multicolor*, from San Domingo, resembles *S. pretrei* but the collar is light yellow and the lower throat deep chestnut.

Most nearly allied to this last is *S. salvini*, from Grand Cayman. It differs, however, in being duller and smaller, and in the collar being deep chestnut.

*S. zena*, from the Bahamas, only differs from *S. salvini* in the color of the back, which is pure black, or nearly so, instead of green, while from Abaco Islands, in the north of the Bahama group, there is another form, which may be distinguished from *S. zena* by the long brownish olive tips to the feathers of the back.

Lastly, from Cozumel Island, off Mexico, we have *S. benedicti*, a species which is almost identical with *S. townsendi*, though curiously enough it occurs at the opposite extremity of their range. I am unable to give any definite points of difference between them, but in *S. benedicti* the back is slightly greener and never shows any trace of black which most of the Abaco birds do.

This genus would be one well worth studying from the Avicultural point of view, for so little is known about them and with ordinary care they should not be difficult to keep in health. I believe a well-known dealer is shortly going out to the West Indies so we may, perhaps, hope before many months are gone to be able to record the arrival of some more of these pretty and delightful birds.

---

## NOTES ON MY VISIT TO AUSTRALIA.

By DAVID SETH-SMITH, F.Z.S., M.B.O.U.

*(Concluded from page 334.)*

There were a number of wild birds in the delightful old-fashioned garden of "Beaumaris." A pear tree was laden with ripe fruit, and I noticed that this was being attacked by several species of Honey-eaters, but especially by the beautiful New Holland or White-bearded species (*Meliornis novæ-hollandiæ*). As I had several in my collection on the ship, I placed one in a trap cage baited with a half-eaten pear, but although I saw the wild birds perch on the side of the cage, none would venture inside.

Knowing that I was anxious to see all that I could of the wild birds around Hobart, Mrs. Roberts very kindly arranged a drive to, and a picnic at, the foot of Mount Wellington. Starting in the early afternoon, our carriage gradually ascended higher and higher, and at every bend of the road a magnificent view presented itself to us. Below us lay the magnificent harbour, and beyond other bays and natural harbours as far as the eye could reach. As we passed through a belt of gum-trees we commenced to see birds. Every now and then small parties of Yellow-bellied Parrakeets would get up from a patch of some seeding herbage by the roadside, or their note, sounding like "tussok tussok" would be heard. Miss Fletcher, who was one of the party, is an excellent ornithologist and knew every bird we either saw or heard. Rosellas we also saw in the wood, and a party of Musk Lorikeets passed over us on their way from a flowering gum tree.

Every now and then we would hear the note of the Garrulous Honey-eater, or see the gaily-dressed New Holland Honey-eater busy with some flowering shrub close to the roadside.

After an excellent "billy" tea, three of us made our way up the mountain. It was a long climb and a hard one, but we eventually reached the top, which was covered with snow.

On the lower slopes the Yellow-bellied Parrakeets were extremely common amongst the timber. Butcher-birds, locally known as "Jackasses" were also met with. The true Laughing

Jackass is not found in Tasmania, and the Butcher-bird has appropriated its name.

Two days later I was invited to join another picnic party to a wooded creek at the foot of the mountain, and here we were more fortunate in the number of birds seen. On this occasion the party consisted of Mrs. and Miss Roberts, the Misses Fletcher, Mr. and Mrs. Butler, Mr. Robert Hall and myself. With such an ornithological party I had every opportunity of learning from the very best authorities of the birds of the neighbourhood. It was not a nice day, rain was falling, and as we sheltered under some thick bushes by the side of a stream, I saw what appeared to me then to be one of the most lovely birds I ever set eyes upon. It hopped from the deep shade on to a stone in the bed of the stream. It was a male Pink-breasted Robin (*Petræca rhodino-gastra*), with black back, a small white spot on the forehead, and a breast of the most beautiful shade of pink. As we watched it another male appeared, and for some time we watched them hopping about amongst the thick foliage. On the hillside we heard the mournful cooing of the Bronzewing Pigeon, and later on the "hoop hoop" of the Brush Bronzewing.

When the rain ceased Mr. Butler and I went for a stroll through the woods, where we saw a number of interesting birds. The rare *Acanthornis magna*, a Scrub Wren peculiar to Tasmania and some of the adjacent islands was pointed out by my companion. Thick-heads (*Pachycephala*), White-eyes, Crescent and Yellow-throated Honey-eaters, the Brown Scrub-Wren (*Sericornis humilis*), Fantail Flycatchers, and many other birds.

On our way back to Hobart I saw a Robin with reddish breast, which my companions identified as a female Scarlet-breasted Robin (*Petræca leggii*). She was perched on a fence and was soon joined by her mate, a most lovely feathered gem. The upper parts are black, and the breast most brilliant scarlet, while the abdomen and a conspicuous spot on the forehead are white. There are several species of *Petræca* in Australia, and lovely creatures they are. I had seen some beauties at Katoomba in the Blue Mountains, but of the exact species I was ignorant. There could be no doubt of those I saw on this occasion however.







Photo by W. S. Berridge, F.Z.S.

THE PEARL-SPOTTED OWL.

*Glaucidium perlatus.*

In the "Domain," a public park behind Hobart, I saw numbers of the tiny Spotted Pardalote, minute tit-like birds, chiefly keeping to the tops of the gum-trees, but sometimes coming to the ground. Garrulous Honey-eaters or "Minas" as they call them there, were plentiful, and we saw the Tasmanian form of the Butcher-bird, the Tasmanian Magpie, Wattle-bird, Cuckoo Shrike (*Graucalus*), Wood Swallow, and many other birds.

On Wednesday, April 22nd, I bade farewell to my kind friends at Hobart, and early the following morning we weighed anchor and sailed for Albany, Western Australia.

Very rough and cold weather was encountered as we sailed round the South of Tasmania, and our stock suffered somewhat.

Four days later we reached the western port, where Mr. L. Le Souëf came out to our ship in a lighter, laden with cases of Western Australian animals, which he had brought by rail from Perth, some three hundred miles distant. Kangaroos, Wallabies, Dingoes, Banksian Cockatoos, Buff-breasted Kingfisher, Mksu-ducks, and so forth.

After a stay of some four hours only we finally set sail for home with our complete collection of some seven hundred animals. There were many species I had greatly hoped to have got which I was unable to secure, but on the whole I think our collection contained a fairly representative sample of the Australian fauna.

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## PEARL SPOTTED OWL.

*Glaucidium periatum.*

By R. B. WOOSNAM.

I did not catch this little Owl myself, but it was one of a family of four young ones taken by a trader out of a hole in an old tree about the beginning of March. I had left Lake Ngami at the time and was on the way back to Mafeking, but Mr. Hannay, the resident magistrate at Lake Ngami, was shortly coming back too, and he kindly tried to buy the four little Owls for me. Their owner would not part with them at first, but before long one escaped and a second died, probably



from being wrongly fed, and Mr. Hannay then succeeded in getting possession of the remaining two. However, during the long waggon journey of five hundred miles down from the Lake, one died, Mr. Hannay thinks it was killed by the mosquitos which were terrible at that time on the Botletle river, and he made a mosquito-proof cage for the survivor, but I am rather inclined to suspect wrong diet again as the cause of death as he was feeding them on small pieces of antelope meat. However, the last one withstood all the hardships of the journey and came safely into my hands on the 13th April, 1910. It was a charming little bird and Mr. Hannay had made it very tame; it would always answer to a whistle and would fly out of its cage on to his hand or shoulder in the evening to have its food. It became greatly excited when I showed it my Erlanger's Scops (which I had at the time), and bobbed up and down uttering some beautiful clear whistles, but I was afraid to put them together as Erlanger's Scops is a much more powerful bird and very fierce. He curiously enough took no notice of the other, although usually so observant of birds and animals.

The Pearl Spotted Owl is quite common throughout the whole of the Kalahari desert and Ngamiland, but is like other birds more numerous near water or places which have water during part of the year, no doubt on account of the food supply. They frequent chiefly the Kameel thorn (acacia) forests, especially the larger trees. They are particularly common all along the Molopo river and in the early morning and evening their curious shrill whistling may be heard in all directions. It is a remarkable note very easily imitated and best described as an ascending scale of seven equally spaced clear whistles followed by a descending scale of five or six longer drawn notes and with longer intervals between. I have often made one answer me and called it into the tree under which I was standing. I have occasionally heard their note during the day time and late at night, but usually only in the morning and evening. This Owl, like all the small African Owls, is, I think, partially diurnal, and they feed considerably on large insects. I have never been fortunate enough to find a nest, and thus see the pellets, but they certainly catch small birds and mammals and lizards as well.

I only had the Pearl Spotted Owl during the journey home, and therefore I am not well acquainted with its habits in confinement, but I am sure all these small Owls are most delightful and interesting pets.

---

## FURTHER NOTES ON ROCK PTARMIGAN.

*Lagopus rupestris.*

By C. BARNBY SMITH.

Since I wrote to the *Avicultural Magazine* in 1908 \* concerning Rock Ptarmigan (*Lagopus rupestris*) I have had some sad losses with these birds, owing both to disease and accident.

However, as I have had, until quite recently, a pair of Rock Ptarmigan in perfect health, which arrived from Iceland some twelve months ago, I am not altogether in despair. Indeed I may say that of all birds in my garden—from Sarus Crane to Pekin Robin—the Ptarmigan are my favourites. This is perhaps partly owing to the fact that, in their case, it is easier than most to approximate their natural surroundings. A few pieces of limestone or granite thrown down in a rough grass enclosure, with a few stunted bushes, form a passable background, and when the cock Ptarmigan perches on a large stone (as he loves to do), utters his weird cry and looks defiantly around, the onlooker is transported away from motor cars and “increment duty” and is living for the moment in the North of Iceland.

On sunny days last Autumn I was interested to notice my Ptarmigan at play—taking sudden, short, quick runs with outspread wings, then suddenly stopping with a jerk, and then dashing suddenly forward again. When one bird started these movements another would imitate them, and their delight in so doing was evident.

By the beginning of December all traces of brown or blue-grey feathers had gone. It has been stated (no doubt correctly) that in Scotland, when the mountains are partly covered with snow, the Ptarmigan of that country (*Lagopus mutus*) select the white patches of snow on which to crouch, and the birds are (of

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\* *Avic. Mag.*, Ser. II., Vol. 7, p. 55.

course) thereby rendered invisible, instead of conspicuous objects as they would be elsewhere. Whether or not they are led to do this by some inherited protective instinct, or whether they merely prefer the snow to lie on as being more comfortable, I do not pretend to say. Certain it is that I have found my Ptarmigan prefer to crouch on patches of snow than on the turf. I well recall my surprise at going to the enclosure one day last January, when the ground was partly covered with snow, and finding the Ptarmigan had completely vanished. As a matter of fact they were right under my eyes a few yards distant, having rounded out little hollows in the snow bringing their backs to the level of the drift, and were thus basking in the winter sun.

Even when I had once seen the birds and came back to the spot, it was difficult to realise they were there, so completely were they hidden; the only noticeable thing being the black mark in front of the eye on cock birds. On another occasion I found the birds crouching on the ground in an evident state of abject terror for no apparent reason. An occasional turn of their eyes upwards at last made me think that the supposed enemy must be a hawk. I looked carefully round the sky several times but failed to see anything, till I at last detected a hawk hovering, a mere speck, over an adjoining field. This hawk had evidently been mistaken by the Ptarmigan for their arch-enemy, the Icelandic falcon.

The Ptarmigan remained completely white until the beginning of March, when the hen bird began to show a few brown feathers on the back of the neck. She continued to change into breeding plumage until the beginning of May, when her new dress was complete, not a white feather to be seen on the upper part of the body and a good deal more black amongst the buff on the back than I expected to see.

The change in the cock was very different, but from what I have seen elsewhere I think it was quite natural. In April he developed a good deal of loose red skin over the eye, but it was not until the first week in May that he showed dark brown feathers on the neck. At the end of May and in early June these were followed by a few blue-grey and light brown feathers on the upper parts, though a good many of the white feathers



were still visible. I think that no one who had not seen it could fully realise how little conspicuous a bird in this plumage is when on a piece of rock. Mr. Frank M. Chapman, in his "Camps and Cruises of an Ornithologist," has noted this as regards the White-tailed Ptarmigan, saying "As long as he holds his statuesque pose he is simply a lichen covered rock."

The cock in springtime differs from the hen in demeanour as much as they differ in plumage. She is often stealing along quickly under any long grass or other cover, with both neck and tail lowered, and when stealing away might, at a short distance, be easily mistaken for a large rat. Her evident object is to escape observation as much as possible. Not so the cock, he will be for ever perching on an elevated rock where he stands erect, distends the skin over his eyes, keeps a watchful look over the surrounding country and utters loud croaks of satisfaction, calling upon all the world to take note of the fact that he is the finest Ptarmigan for miles round. This at least is how my birds behaved last Spring. I was much amused one day in May to see the cock Ptarmigan attempting to fight a cock Reeves' Pheasant through the wire dividing their enclosures. The Pheasant was peacefully walking along his side of the wire when the plucky little Ptarmigan charged violently at the wire with loud and defiant croaks, and followed the Pheasant alongside the wire for some ten yards, making repeated charges. He then rushed back to the hen with both head and tail erect, evidently delighted at his own success in driving off the intruder. I thought this conduct looked hopeful for nesting, and I also noticed for several weeks that the cock Ptarmigan kept working little hollows in the grass at different places and inviting the hen to enter. He must have made at least a dozen of these. On June the 14th, I noticed him perched on his stone as usual, when the hen suddenly came out of a tuft of grass near a low bush where she had been lying. The cock at once jumped down with low growls of disgust and slowly drove the hen back. He then resumed his perch. In about one minute the hen again came out and began feeding. The cock again immediately jumped down, swearing loudly, and violently chased her back. She did not venture out again whilst I was watching. It was not until the 17th of June

that an egg was laid. The site selected was under a broom in a little hollow made some weeks previously. My Ptarmigan run is at times, unfortunately, infested with rats, so the birds have had to spend the night in an inner enclosure covered with rat-proof wire. Hence the trouble when the hen Ptarmigan nested in the outer enclosure. However, I determined after this to keep the birds entirely in the inner enclosure for a week to see if they would make a fresh nest there. This effort was (as I half expected) without result. With this apparently complete failure of nesting operations I was left musing deeply on the late poet Laureate's forcible phrase, "Curse me the British vermin, the rat."

However, in this case, as in many others, the unexpected happened. When I first kept the birds by day in the inner enclosure I put the egg with them, placing it in a little nest of dead grass which I made, and when I let the birds out at the end of about a week I removed the egg. To my surprise, after a few more days, the Ptarmigan laid one evening in the artificial nest. She laid thirteen eggs here between the 30th of June and 22nd of July. The eggs were very carefully covered by her (especially at first) with a covering of grass about an inch thick. The covering was afterwards less thick, but the nest was, at all times, so arranged as not to be noticeable a couple of yards away. The cock helped the hen to make the covering, pulling grass with great vigour. I noticed the hen on several occasions after laying very busy working the eggs about in the nest. When she went to lay the cock bird would always go with her and perch on a stone near the nest.

For some reason or other (which I did not understand at the time) the Ptarmigan refused to sit. After laying the 13th egg she left the eggs quite uncovered for a few hours, and afterwards returned to the nest and sat on the eggs for about an hour both that and the following day. Without being disturbed she then deserted the nest. I placed the thirteen eggs under a bantam. About five days later the hen Ptarmigan died rather suddenly. Some of the eggs proved to be bad; as to the rest—the bantam, with laudable but ill-advised attempt to expedite matters, on and prior to the twenty-fourth day of sitting, pecked

the chicks out of the shells and none lived, so that the whole attempt ended in disastrous failure. Nevertheless it was (to me at least) a failure of such interest as to encourage further efforts. I am getting a hen Willow Grouse to go with my cock Ptarmigan next season and hope to get some hybrid chicks.

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## BIRD NOTES FROM THE ZOOLOGICAL GARDENS.

By THE EDITOR.

September is always a dull month in the bird line, whether the birds are wild or in captivity. The nesting season is over, and most species are indulging in a full moult, when, needless to say, they do not look their best. At such times also, in contradistinction to their spring habits, they tend like brer rabbit to 'lie low and say nuffing' as though ashamed of their weather beaten aspect. Towards the end of the month, however, when they have donned their new livery they become more lively and may even play at nesting, as was the case to-day (September 21st) with two Herring Gulls, till the first cold snap reminds them to husband their energies for the approach of winter.

The Birds of Paradise are by now nearly through their moult and are already beginning to indulge in their loud rancous cries and to show off their newly acquired plumage in anticipation of coming summer, for it must not be forgotten that in their sunny homes in the South Pacific, they nest during our mid-winter.

Among the new arrivals may be noticed two Roseate Spoonbills and three Darters from America, the former have not often been seen in the Gardens and the latter have been absent from the collection for some years. From America, also, a pair of Dusky Ducks has been imported. This is a dull coloured species, closely allied to the Mallard and one in which both sexes are alike.

The genus *Anas* offers the curious instance of nearly allied species in one of which the sexes are markedly distinct, while in others they are practically alike. A similar case occurs in the Pintails (*Dafila*) where our common species shows marked sexual differentiation and the Bahama Duck and Chilian Pintails



practically none. These last two are now placed in a separate genus (*Pæcilonetta*) but they are none the less very closely allied to the true *Dafila*.

Perhaps the most noticeable instance of this sex difference (or lack of it) is to be found in two species of Wheatears from North Africa, *Saxicola lugens* and *Saxicola halophila*. These species both inhabit similar localities (viz. sandy deserts), the former in Egypt, the latter in Tunis. The males are practically indistinguishable and only to be recognised by a difference in the amount of white on the primaries. Yet in *S. lugens* the female is merely a rather duller counterpart of her mate, while in *S. halophila* the differences are striking. These cases must probably be due to some physiological causes and it should not be beyond the power of Aviculture to throw some light upon them.

The appearance in the new Bird of Prey Aviaries of two fine young Peregrines, confiscated for having been illegally taken, remind us that a few of the rarer hawks still breed here in spite of persecution. They look in fine health and plumage though most bird lovers would probably prefer to think of them soaring over the Solent and the cliffs of their birthplace in the Isle of Wight.

A pair of Carolina Doves (*Zenaidura carolinensis*) and two Cuban Trogons (*P. temmurus*) complete the list of the principal additions with the exception of a Manx Shearwater picked up in a street of Greater London. The Shearwaters are seldom seen in captivity nor do they live long when caught, none the less a little trouble in finding out their requirements would be well spent, for they are mysterious birds spending their lives on the high seas and only approaching land when storm tossed or for purposes of breeding. At their nesting haunts, however, but little is seen of them for they nest in holes and only arrive and depart after dark.

There is one breeding record to be noted, that of a Red-collared Lorikeet (*Trichoglossus rubritorques*). The pair nested in a box in one of the large cages in the Parrot House and a fine healthy young one left the nest early in the month.

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NESTLING CUCKOO BEING FED BY A MEADOW PIPIT.

(From a drawing by Mac Gillivray in the British Museum.)



## REVIEWS.

## WILLIAM MACGILLIVRAY.\*

This book should prove to be of more than ordinary interest to the bird-lover. It is a carefully arranged record of the life of one of the most eminent British Ornithologists of his day, and considering the fact that no materials for a complete biography of Prof. MacGillivray now exist and that all but two volumes of his journals were accidentally destroyed by fire many years ago in Australia, we are given a more complete account of his life than we are led to expect from the Author's introductory note.

The earlier chapters of the work give a vivid impression of the irresistible fascination which nature exercised over the young medical student, a fascination which so dominated him that as soon as opportunity offered he abandoned his medical studies for more congenial scientific work. The account of his work is followed by a most interesting appreciation of the same by Prof. J. A. Thomson, and the concluding chapters are devoted to extracts from MacGillivray's writings, each extract a word picture in itself of what the writer saw and observed.

But it was not only as a writer that MacGillivray was able to portray the beauties of his beloved nature, he excelled also as an Artist and his drawing of birds now in the British Museum of Natural History, some of which are reproduced in the volume before us, remain for beauty and minuteness of detail, unsurpassed up to the present day. The plate of the Meadow Pipit and Young Cuckoo, p. 126 (which we reproduce here by kind permission of the publisher) is particularly beautiful and life-like.

MacGillivray was born in 1796, and his work therefore was carried on under difficulties, of which we in the light of modern science know little or nothing. The works of Linneaus and Pennant were his only guides and "he knew no living wight"

It may be, however, that it was this freedom from book knowledge, and the consequent necessity of seeing and observing

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\* Life of WILLIAM MACGILLIVRAY by WILLIAM MACGILLIVRAY, W.S. with a scientific appreciation by J. ARTHUR THOMSON. Roy. 8vo. pp. 222 with 12 full page illustrations. JOHN MURRAY, London, 1910. 10/6 net.

for himself, unhindered by the pre-conceived opinions of others, which led him to take every opportunity of studying birds and plants in their natural surroundings, and it was as an ardent field-naturalist that MacGillivray acquired the mass of extraordinarily interesting information which made his scientific work so fascinating and valuable. His zeal and energy were tremendous, no trouble or hardship deterred him from furthering his knowledge. Nights were spent on mountain tops in order to study the habits of birds, and discomforts which would have discouraged many another man, were cheerfully put up with.

In September 1819, he walked all the way from Aberdeen to London to see the British Museum, and fortunately the parts of his journal describing this experience are still in existence. We would refer our readers to Chapter II. where copious extracts are given.

In 1830 MacGillivray was appointed Conservator of the Museum of the Edinburgh College of Surgeons, and in addition to his work there found time to compile and write his "History of British Birds" and to assist Audubon in preparing his great work "Ornithological Biographies." This great American ornithologist had come to Scotland in order to publish his works on American birds, for which there was no opening in America in those days! His acquaintance with MacGillivray ripened into a deep friendship which proved profitable to them both.

The very considerable work which these two books, and many minor writings, entailed was not however allowed to interfere with his duties at the Museum and we read that one year after his appointment as Conservator, the whole collection, comprising some 4000 specimens, was moved to a more suitable building, where MacGillivray cleaned and labelled every article with his own hands.

In 1833 he was sent to London to inspect the Museums there, on which he subsequently wrote a report.

In 1841 he resigned this post to take up the Professorship of Civil and Natural History in Marischal College, Aberdeen.

It is most interesting in reading this book to note from the extracts given from MacGillivray's writings his continual insistence upon the necessity of studying animals and plants in

their living state. It was "the business of living creatures" which appealed to him so strongly, and he saw then, what the foremost workers in zoology are realizing now, that the study of living specimens is absolutely indispensable to true scientific work. It is from this point of view that the writings of MacGillivray are of such interest to all aviculturists, for although most of his observations were from animals and plants in their wild state his arguments and reasonings hold equally good where birds in captivity are concerned, and it is beyond question that certain facts, concerning for instance moult, incubation, length of life, etc., can only be satisfactorily obtained from living specimens under close observation and it is here that the scientific aviculturist can assist so vitally not only in the true study of ornithology, but also in those greater problems of nature, heredity, etc., which are becoming of such vital interest and importance.

In Chapter VI., Prof. J. A. Thomson, who now holds the position in the Aberdeen University which MacGillivray occupied in his day, contributes a just appreciation of the latter's scientific work which was marked throughout by a precision and attention to detail, which subsequently earned him the epithet from Darwin of "The Accurate MacGillivray." Unfortunately a genius for detail seems often to imply a narrowness of mind on larger questions, but MacGillivray seems to have combined to an extraordinary degree the capacity for the most detailed work and a breadth of outlook which is truly refreshing in these days of specialists. MacGillivray was an "all round Naturalist, a well-equipped Geologist, Botanist and Zoologist," he taught all three sciences with conspicuous success, but above all his affections were given to ornithology, and, of his work in that science we cannot do better than quote the verdict of the late Prof. A. Newton, who, as Prof. Thomson says "was not lavish in his compliments."

"This is not the place to dwell on MacGillivray's merits; but I may perhaps be excused for repeating my opinion that after Willoughby, MacGillivray was the greatest and most original ornithological genius save one, (who did not live long enough to make his powers widely known) that this island has produced."



Did space permit we would have liked to have given extracts from many passages of interest in this attractive book, which we confidently recommend to our readers as one of the most interesting biographies we have come across and one which has been read with absorbing interest from beginning to end.

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### BRITISH BIRDS.\*

*British Birds* continues to maintain its high standard, though the two numbers under review are almost entirely composed of short notes. Among the longer articles, however, we may notice Miss Turner's account of a Wild Duck removing her eggs to a more sheltered spot, the vegetation round the nest first having been removed for photographic purposes. Mr. Ticehurst gives us a further instalment of down plumages, and Mr. Witherby describes the sequence of plumage in our Common Tits. The "Recovery of Marked Birds" forms, perhaps, the most interesting of the "Notes." Two Blackbirds, which were caught in fruit nets last year having been again recaptured in the same nets this year. Other records shew the recovery of Gulls, Woodcock, Cuckoo, etc., but in all these cases they had travelled but a short distance from where they were originally rung.

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### A LIST OF BRITISH BIRDS.†

As so many additions to the British Avifauna have been made since the publication of the late Mr. Howard Saunders' list in 1907, the necessity for a new list on the subject for the purposes of labelling and reference is apparent and the list before us is practically a reprint of one recently prepared by Mr. Grant for the "Guide to British Vertebrates" in the Natural History Museum.

The system used by the author for showing the status of of each species is good and is easily understood; but we can hardly agree with all the author's conclusions, as for instance the inclusion of the Shore Lark and Water Pipit in column 5

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\**British Birds*. August and September, 1910. H. F. WITHERBY & Co., 326, High Holborn. Monthly 1/-.

†LIST OF BRITISH BIRDS by W. R. OGILVIE GRANT; WITHERBY & Co., London, 1910. Price 1/6.

With Illustrations, Demy 8vo. Price 10s. 6d. net

# LIFE OF WILLIAM MACGILLIVRAY

M.A., LL.D., F.R.S.E.; ORNITHOLOGIST; PROFESSOR OF  
NATURAL HISTORY, MARISCHAL COLLEGE AND  
UNIVERSITY, ABERDEEN

BY WILLIAM MACGILLIVRAY, W.S.

AUTHOR OF "ROB LINDSAY AND HIS SCHOOL," ETC.

WITH A SCIENTIFIC APPRECIATION

BY J. ARTHUR THOMSON

REGIUS PROFESSOR OF NATURAL HISTORY, ABERDEEN UNIVERSITY



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## EXTRACT FROM PREFACE

WILLIAM MACGILLIVRAY was a native of Aberdeen, lived during his boyhood with his relations in the island of Harris, went to his native city for his university education—spending his long holidays during the period of that education in Harris. While in the course of his goings and comings between Aberdeen and Harris, and of other excursions on foot in many parts of the country, including a walk from Aberdeen to London, his eyes were always open to every object in Nature, both animate and inanimate. All that he saw he treasured in a retentive memory, besides committing much to carefully written journals.

He married in 1820, and the twenty-one years of his life that immediately followed were spent in Edinburgh. During that period, besides attending faithfully to his official duties as Conservator of the Museum of the Edinburgh College of Surgeons, for the last half of that period, he devoted much of his time to the acquisition of extended knowledge of Nature, especially of ornithology, which had become his favourite study.

Besides much other scientific literary work, he published during that period the first three volumes of his *History of British Birds*; and he revolutionised



the science of ornithology, by insisting on the necessity for taking into account, in the classification of birds, the internal as well as the external organs, to which latter all ornithologists had, up to that time, restricted their attention for purposes of classification.

In 1841 he obtained the position of Professor of Natural History in Marischal College, Aberdeen, which he held until his death in 1852. During that period he devoted himself with untiring energy and zeal to the discharge of his professorial duties. He was a most attractive teacher, and many students were drawn to his lectures, although the subjects of them were quite unconnected with their own special courses of study—brother professors even being unable to resist their attraction, while one of them enrolled himself as a student in his class.

In his excursions with his students he taught them how to look at Nature in every aspect and detail of it, while he inspired them with much of his own spirit as a devoted lover of every natural object on which they looked, however small or apparently insignificant.

What a blank he left behind him when he died! How great the loss was to all who had relations with him of any kind—a man so loving and so beloved! His loss to science too—quietly progressive and evolutionary as he was in his views—even before the days of Darwin, who can estimate?

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(occasional visitor, never known to breed). Both these species as is now well-known, occur on certain parts of the coast every year with unfailing regularity.

With regard to the systematic order used by the author we must confess that we fail to understand it, had it commenced "at the bottom" it would have been easier to follow but the reason for starting with the Game birds seems incomprehensible. Sub-species (or geographical races) are not recognised as such, the binominal system being strictly adhered to. In a list such as the present, this may be wise but there can be no excuse for *including* the British and Continental Robin as two species and ignoring the difference between the British and Continental Thrush. This last-named occurs in this country in winter much more commonly than the Robin.

A most useful feature in the present list is that references are given to all species which have occurred on less than six occasions. This, however, would have been made far more useful had the *original* references been given in *every* case instead of quoting a periodical which had copied them from the original source.

Lastly, as a "Label List," it is not suitable, for the names are printed far too closely together to enable them, when cut out, to form a presentable label. In short, this list, though attempting to supply an undoubted want, might have been so much better had more care and attention to detail been bestowed on it, as it stands, however, it is superior to existing lists.

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## CORRESPONDENCE, NOTES, ETC.

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### NOTES FROM THE HODDAM CASTLE AVIARIES.

SIR,—I send these notes to the *Avicultural Magazine* hoping they may be of some slight interest, but I fear most of the birds I write about are not such as are in the hands of many members of the Society.

During the past season my more ordinary birds, such as the Australian Parrakeets, have absolutely refused to nest; I have, however, had success with Stella Lories, two pairs of these beautiful birds having successfully reared young. The pair of Black Lories that reared a young bird last year have been successful again; this young bird has not flown yet, but it is very strong and healthy.



I have had unsuccessful eggs from Red-naped Lorikeets, Black-cap Lories and Yellow-streaked or Red-fronted Lories.

I think I once mentioned in the Magazine how fond the Greater and Lesser Apodas were of mice and small birds; I recently had another illustration of how Birds of Paradise feed on flesh. While watching the birds in an aviary containing Lawe's Six-plumed and Prince Rudolph's Birds of Paradise a mouse ran out from behind some pipes, immediately one of the Six-plumed birds pounced on it with a silent Owl-like flight and very soon had the mouse killed and eaten. I was very much surprised at this as I always looked upon this species as more frugiferous than insectivorous, and the beak does not look at all like breaking up live creatures such as mice for food.

Last Spring I had an instance of the value of sop as an occasional food for birds I should never have thought of giving it to. I had, in one aviary, five Superb Birds of Paradise; these birds were rather given to fits which soon passed off and seemed to leave the birds none the worse. I tried all ways to check these fits but without success. One day I required an aviary for a new arrival and, so to get the space required, I put two Scarlet Tanagers and a Fruit-sucker into the Superbs' aviary. In a few days the Superbs were taking some of the sop given for the Tanagers and Fruit-sucker, and since then there have been no more fits.

E. J. BROOK.

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## THE SOCIETY'S MEDAL.

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The following Medals have been awarded; other claims are under consideration and will come before the next meeting of Council.

- To Mr. W. E. TESCHEMAKER for breeding the RUFOUS-BACKED MANNIKIN (*Spermestes nigriceps*). Ser. 2. Vol. VII., p. 321.
- „ Mr. W. T. PAGE for breeding the GREY-WINGED OUZEL (*Merula boulboul*). Ser. 2. Vol. VII., p. 334.
- „ Mr. E. J. BROOK for breeding the BLACK LORY (*Chalcopsittacus ater*). Ser. 3. Vol. I., p. 28.
- „ Mr. W. E. TESCHEMAKER for breeding the GIANT WHYDAH (*Chreda procne*). Ser. 3. Vol. I., p. 81.
- „ Mr. T. H. NEWMAN for breeding the DECEPTIVE TURTLE DOVE (*Turtur decipiens*). Ser. 3. Vol. I., p. 120.
- „ Mr. T. H. NEWMAN for breeding the WHITE-THROATED PIGEON (*Columba albicularis*). Ser. 3. Vol. I., p.p. 158 and 194.
- „ Mr. P. W. THORNILEY for breeding the ARGENTINE BLACKBIRD (*Turdus fuscater*). Ser. 3. Vol. I., p. 267.

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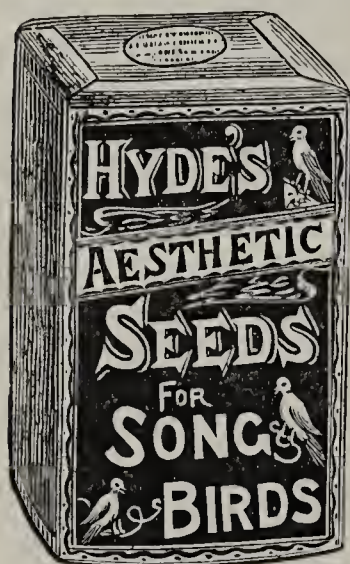
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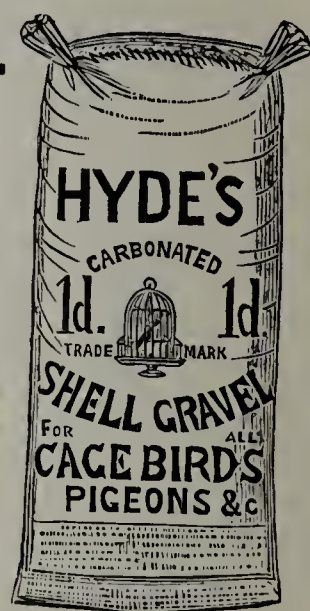
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**Soft-billed Birds.** Grey-winged Blackbird 20/-; Peruvian Green Jays 30/-; Wandering Tree Pie, 20/-; Boat-tailed Grackles 36/-; Black Red-crowned Tanagers 16/- each; Black-winged Grackle £2; Pileated Jay, extra fine, 30/-. Acclimatized Pekin Robin 5/-; Military Starlings 25/- pair; extra fine hen Brazilian Hangnest 30/-, outside aviaries.

**Pheasants, Partridges, etc.** Golden Pheasants 32/6 pair; pair Silvers, 20/-; pair Rare Tinamous £3; male Satyrs Crimson Tragopan Pheasant £4 10/-; Californian Quail 25/- pair; male Swinhoe Pheasant, fine bird, £3 5/-; Rufous Tinamous 45/- pair; 10 rare Patagonian Tinamous £3 pair. Kalij Pheasants due shortly.

**Parrots, Parrakeets and Lories.** Yellow-fronted Amazon 30/-; cock Cockateels 5/6; talking Blue Fronts 45/-; Salle's Amazon £2; Bronze Pionus Parrot £2; Ring-neck Parrakeets, beauties, 2/6 each; Orange-winged Amazons £1 each; cock Blue Bonnets, acclimatized, 25/-; tame White-winged Parrakeet 20/-; very fine Diademed Amazon £2; Finger tame Tui, Petzi, White Winged Conures 20/- each; acclimatized Pennant Parrakeet, cock, 32/6; Yellow Budgerigars 8/6 pair; Green Budgerigars 6/- pair; White-eared Conure 12/6; Leadbeater Cockatoo 40/-.

**Doves.** Aurita Doves, 13/6; White-winged 7/6; Senegals 5/- each; 2 pairs Red Mountain Doves 32/6 pair.

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